# REVISION RECORD FOR THE STATE OF CALIFORNIA

### **SUPPLEMENT**

October 12, 2006

2001 Title 24, Part 2, California Building Code

PLEASE NOTE: The date of this Supplement is for identification purposes only. See the History Note Appendix for the adoption and effective dates of the provisions.

It is suggested that the section number as well as the page number be checked when inserting this material and removing the superseded material. In case of doubt, rely on the section numbers rather than the page numbers because the section numbers must run consecutively.

It is further suggested that the superseded material be retained with this revision record sheet so that the prior wording of any section can be easily ascertained.

Please keep the removed pages with this revision page for future reference.

### **NOTE**

Due to the fact that the application date for a building permit establishes the California Building Standards code provisions that are effective at the local level, which apply to the plans, specifications, and construction for that permit, it is <u>strongly recommended</u> that the removed pages be retained for historical reference.

### **VOLUME 1**

<b>Insert New Pages</b>
1-iv.1 and 1-iv.2
1-xvi.1 and 1-xvi.2
1-1 through 1-6
1-7 through 1-8.2
1-9 through 1-12.8
1-18.1 and 1-18.2
1-50.13 through 1-50.14B
1-50.19 and 1-50.20
1-50.23 through 1-50.30
1-50.39 through 1-50.42
1-93 through 1-96
1-107 through 1-112
1-117 and 1-118
1-123 and 1-124
1-134.1 through 1-134.20.68
1-134.21 through 1-134.26
1-134.29 through 1-134.62
1-134.75 and 134.76
1-134.79 through 1-134.92
1-134.115 and 1-134.116
1-285 through 1-288

(Continued)

### **Remove Existing Pages**

1-301 and 1-302

1-307 through 1-308.14

1-429 and 1-430

1-433 and 1-434

1-449 and 1-450

### **Insert New Pages**

1-301 and 1-302

1-307 through 1-308.10

1-429 and 1-430

1-433 and 1-434

1-449 and 1-452

## Questions and Interpretations Contact List 2001 California Code of Regulations, Title 24

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	Board of Corrections	<b>Department of Housing and Community Development</b>
	Local Adult Jail Standards	Residential
	California Energy Commission  Energy Hotline	Manufactured Homes, Commercial Coaches, and
	Building Efficiency Standards Appliance Efficiency Standards	Permanent Structures in Mobile Home Parks (General)
	Compliance Manual/Forms  Media and Public Communications	Northern Region       (916) 255-2501         Southern Region       (951) 782-4420         Employee Housing       (916) 445-9471
	California State Library	Department of Industrial Relations, Division of
	Construction Standards (916) 445-9617	Occupational Safety and Health
	<b>Department of Consumer Affairs—Acupuncture Board</b>	Places of Employment and Employee Safety (800) 963-9424
II	Office Standards (916) 445-3021	Elevators
	Department of Consumer Affairs—Board of Pharmacy         Pharmacy Standards       (916) 445-5014	Pressure Vessels         (510) 622-3052           Asbestos—Industrial Hygienist         (415) 703-5100
	Demonstrate of Community Afficients Described for Demonstrate	Department of Water Resources
	<u>Department of Consumer Affairs—Board of Barbering</u> <u>and Cosmetology</u>	Gray Water Installations Standards (916) 651-9667
11	Barber and Beauty Shop and College Standards (916) 445-0713	Department of the Youth Authority  Institutional Standards
	Department of Consumer Affairs—Bureau of Home	Division of the State Architect—Access Compliance
	Furnishings and Thermal Insulation Insulation Testing Standards (916) 574-2041	Access Help Line
	. ,	
	Department of Consumer Affairs—Structural Pest Control Board	Division of the State Architect—Structural Safety
	Structural Standards (916) 561-8708	Public Schools       (916) 445-8100         State-owned Buildings       (916) 445-8100         Asbestos       (916) 445-8100
	Department of Consumer Affairs—Veterinary Medical Board	State Building Inspector Information (916) 445-8100
	Veterinary Hospital Standards (916) 263-2610	Office of Statewide Health Planning and Development
	Department of Food and Agriculture	Hospitals
	Meat & Poultry Packing Plant Standards (916) 654-0504	Clinics
	Dairy Standards	Permits (916) 654-3362
	<b>Department of Health Services</b>	Office of the State Fire Marshal (916) 445-8200
	Organized Camps       (916) 449-5661         Public Swimming Pools       (916) 449-5661         Asbestos—Indoor Air Quality Asst. Line       (510) 620-2874	State Historical Building Safety Board Alternative Building Standards (916) 445-7627

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### California Matrix Adoption Tables

### Format of the California Matrix Adoption Tables

The matrix adoption tables, which follow, show the user which agencies have adopted and/or amended given sections of the model code. The building application determines which state agency's adoptions apply. See Section 101.17 for building applications and enforcement responsibilities.

Agencies are grouped together, based on either local or state enforcement responsibilities. For example, regulations from DSA/AC are enforced both at the state and local levels; therefore, DSA/AC is listed twice in each adoption table indicating state enforcement responsibilities and local enforcement responsibilities.

The side headings identify the scope of state agencies' adoption as follows:

### Adopt the entire UBC chapter without state amendments.

If there is an "X" under a particular state agency's acronym on this row, this means that particular state agency has adopted the entire model code chapter without any state amendments.

### Example:

### **CHAPTER 2—DEFINITIONS AND ABBREVIATIONS**

ENFORCING AUTHORITY	LO	CAL BUILD	ING OFFIC	IAL	LOCAL FIRE OFFICIAL	LOCAL HEALTH OFFICIAL	. 6				STATE A	GENCY					
	HCD DSA					74.				CA	DSA		OSI	1PD			
ADOPTING AGENCY	CA	1	2	AC	SFM	DHS	AGR	вос	BSC	SPCB	SS	1	2	3	4	DOSH	SL
Adopt entire UBC chapter without amendments					0,	51			X								

### Adopt the entire UBC chapter as amended, state-amended sections are listed below:

If there is an "X" under a particular state agency's acronym on this row, it means that particular state agency has adopted the entire model code chapter, with state amendments.

Each state-amended section that the agency has added to that particular chapter is listed. There will be an "X" in the column, by that particular section, under the agency's acronym, as well as an "X" by each section that the agency has adopted.

### Example:

### **CHAPTER 2—DEFINITIONS AND ABBREVIATIONS**

ENFORCING AUTHORITY	LOCAL FIRE OFFICIAL	LOCAL HEALTH OFFICIAL	STATE AGENCY														
		Н	CD	DSA						CA	DSA		OSH	1PD			
ADOPTING AGENCY	CA	1	2	AC	SFM	DHS	AGR	▶ BOC	BSC	SPCB	SS	1	2	3	4	DOSH	SL
Adopt entire UBC chapter as amended (amendments listed below)					X	AM											
202 CA					X												

### Adopts only those sections that are listed below:

If there is an "X" under a particular state agency's acronym on this row, it means that particular state agency is adopting only specific model code or state-amended sections within this chapter. There will be an "X" in the column under the agency's acronym, as well as an "X" by each section that the agency has adopted.

### Example:

### **CHAPTER 2—DEFINITIONS AND ABBREVIATIONS**

ENFORCING	G AUTHORITY	LO	CAL BUILD	ING OFFIC	IAL	LOCAL FIRE OFFICIAL	LOCAL HEALTH OFFICIAL		STATE AGENCY									
			H	HCD			DHS		вос	BSC	CA SPCB	DSA SS	OSHPD					
ADOPTING AGENCY		CA	1	2	DSA AC	SFM		AGR					1	2	3	4	DOSH	SL
Adopt only those sections which are listed below			X	X				J.E										
202	CA		X	X			- 1//											
202	UBC		X	X		C												
203	CA		X	X														
203	UBC		X	X														

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### Legend of Abbreviations of Adopting State Agencies

CEC California Energy Commission

DWR Department of Water Resources

CA Department of Consumer Affairs:

Board of Barbering and Cosmetology Board of Veterinary Medicine Examiners

Board of Pharmacy

Acupuncture Examining Committee Bureau of Home Furnishings Structural Pest Control Board

HCD Department of Housing and Community Development

DSA/AC Division of the State Architect/Access Compliance

SFM Office of the State Fire Marshal

DHS Department of Health Services

AGR Department of Food and Agriculture

BOC Board of Corrections

BSC California Building Standards Commission

DSA/SS Division of the State Architect/Structural Safety

OSHPD Office of Statewide Health Planning and Development

DOSH Division of Occupational Safety and Health

SL State Library

|| SLC State Lands Commission

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### Volume 1

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## Chapter 1 ADMINISTRATION

### SECTION 101 — TITLE, PURPOSE AND SCOPE

**101.1 Title.** These regulations shall be known as the *Uniform Building Code*, may be cited as such and will be referred to herein as "this code."

[For DSA/AC] For the State of California, these regulations shall be known as the California Building Code. The provisions contained in the California Building Code of the (compiled) California Building Standards Code as defined in Section 18910, Health and Safety Code, may be cited as such and are referred to hereafter as "these regulations" or "these building standards" or "this code."

**101.2 Purpose.** The purpose of this code is to provide minimum standards to safeguard life or limb, health, property and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location and maintenance of all buildings and structures within this jurisdiction and certain equipment specifically regulated herein.

The purpose of this code is not to create or otherwise establish or designate any particular class or group of persons who will or should be especially protected or benefited by the terms of this code. [For DSA/AC] This language is not adopted by DSA/AC.

[For DSA/AC] The purpose of this code is to ensure that barrier-free design is incorporated in all buildings, facilities, site work and other developments to which this code applies and to ensure that they are accessible to and usable by persons with disabilities

[For HCD 1 & HCD 2 & HCD 1/AC] The purpose of this code is to establish the minimum requirements necessary to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, sanitation, accessibility, use and occupancy, adequate light and ventilation, energy conservation, and safety to life and property from fire and other hazards attributed to the built environment.

**101.3 Scope.** The provisions of this code shall apply to the construction, alteration, moving, demolition, repair, maintenance and use of any building or structure within this jurisdiction, except work located primarily in a public way, public utility towers and poles, mechanical equipment not specifically regulated in this code, and hydraulic flood control structures.

For additions, alterations, moving and maintenance of buildings and structures, see Chapter 34. For temporary buildings and structures see Section 3103 and Appendix Chapter 31.

Where, in any specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable.

Wherever in this code reference is made to the appendix, the provisions in the appendix shall not apply unless specifically adopted. [For DSA/AC] This language is not adopted by DSA/AC.

101.3.1 [For DSA/AC] The provisions of the model codes which are adopted by these regulations are applicable to all occupancy groups and uses regulated by this code. The amendments to the model codes are applicable only to those occupancies or uses

which the state agency adopting the amendments is authorized to regulate as listed in Section 101.17.

NOTE: It is not the intent of this section that every existing occupancy within the scope of the state fire marshal's jurisdiction mandatorily conform or be made to conform to the new construction requirements relative to fire, panic and explosion safety. Reasonable judgment must be exercised by the enforcing agency in the application of these building standards to existing occupancies.

[For DSA/AC] EXCEPTION: Outdoor environments and uses shall be classified according to accessibility uses described in Chapters 11A, 11B and 11C, and life safety concerns.

### 101.4 [For DSA/AC] Effective Date.

101.4.1 [For DSA/AC] One hundred and eighty days after the date of publication, or as otherwise noted herein.

**NOTE:** [For DSA/AC] For clarification purposes, the applicable sections of the Health and Safety Codes are repeated here for clarity and read as follows:

Section 18938. Application and Effective Date. The building standards contained in the Uniform Fire Code, of the International Conference of Building Officials and the Western Fire Chiefs Association, Inc., the Uniform Building Code of the International Conference of Building Officials, Appendix Chapter 1 of the Uniform Code for Building Conservation of the International Conference of Building Officials, the Uniform Plumbing Code of the International Association of Plumbing and Mechanical Officials, the National Electrical Code of the National Fire Protection Association, the Uniform Mechanical Code of the International Association of Plumbing and Mechanical Officials, as referenced in the California Building Standards Code, shall apply to all occupancies throughout the state and shall become effective 180 days after publication in the California Buildings Standards Code by the California Building Standards Commission, or at a later date after publication established by the commission.

[For HCD 1 & HCD 2] Section 17958. Except as provided in Sections 17958.8 and 17958.9, any city or county may make changes in the provisions adopted pursuant to Section 17922 and published in the California Building Standards Code or the other regulations thereafter adopted pursuant to Section 17922 to amend, add, or repeal ordinances or regulations that impose the same requirements as are contained in the provisions adopted pursuant to Section 17922 and published in the California Building Standards Code or the other regulations adopted pursuant to Section 17922 or make changes or modifications in those requirements upon express findings pursuant to Sections 17958.5 and 17958.7. If any city or county does not amend, add, or appeal ordinances or regulations to impose those requirements or make changes or modifications in those requirements upon express findings, the provisions published in the California Building Standards Code or the other regulations promulgated pursuant to Section 17922 shall be applicable to it and shall become effective 180 days after publication by the California Building Standards Commission. Amendments, additions and deletions to the California Building Standards Code adopted by a city or county pursuant to Section 17958.7, together with all applicable portions of the California Building Standards Code, shall become effective 180 days after publication of the California Building Standards Code by the California Building Standards Commission.

101.5 [For DSA/AC] Format. This part fundamentally adopts the UBC by reference on a chapter-by-chapter basis. Such adoption is reflected in the adoption table of each chapter of this part. When the adoption table of a chapter of this part makes no reference to a specific chapter of the UBC, such chapter of the UBC is not adopted as a portion of this code.

101.6 [For DSA/AC] Validity. If any chapter section, subsection, sentence, clause or phrase of this code is for any reason held to be unconstitutional, contrary to statute, exceeding the authority of the state as stipulated by statutes, or otherwise inoperative, such decision shall not affect the validity of the remaining portion of this code.

101.7 [For DSA/AC] Standard Reference Documents. The codes, standards and publications adopted and set forth in this code, including other codes, standards and publications referred to therein are, by title and date of publication, hereby adopted as standard reference documents of this code.

When this code does not specifically cover any subject relating to building design and construction, recognized fire-prevention engineering practices shall be employed. The National Fire Codes and the Fire Protection Handbook of the National Fire Protection Association may be used as authoritative guides in determining recognized fire-prevention engineering practices.

101.8 [For DSA/AC] Nonbuilding Regulations. Requirements contained in the UBC, or in any other referenced standard, code or document, which are not building standards as defined in Section 18909, Health and Safety Code, shall not be construed as part of the provisions of this code.

For the applicability of regulations relating to maintenance, operation, use, limitations or prohibitions, and similar nonbuilding regulations, see other titles of the California Code of Regulations.

### 101.9 [For DSA/AC] Order of Precedence.

101.9.1 [For DSA/AC] General. In the event of any differences between these building standards and the standard reference documents, the text of these building standards shall govern. Where a specific provision varies from a general provision, the specific provision shall apply.

101.9.2 [For DSA/AC] Fire Codes. Nothing in these building standards shall diminish the requirements of the state fire marshal.

### 101.10 Approvals. (Deleted)

101.11 [For HCD 1 & HCD 2, SFM & BSC] More Restrictive Standards. For clarification purposes, the applicable subsection of the Health and Safety Code Section is repeated here for clarity and reads as follows:

Section 18941.5. (a) Amendments, additions and deletions to the California Building Standards Code adopted by a city, county, or city and county pursuant to Section 18941.5 or pursuant to Section 17958.7, together with all applicable portions of the California Building Standards Code, shall become effective 180 days after publication of the California Building Standards Code by the commission or at a later date after publication established by the commission.

(b) Neither the State Building Standards Law contained in this part, nor the application of building standards contained in this section, shall limit the authority of a city, county, or city and county to establish more restrictive building standards reasonably necessary because of local climatic, geological or topographical conditions. The governing body shall make the finding required by Section 17958.7 and the other requirements imposed by Section 17958.7 shall apply to that finding. Nothing in this section shall

limit the authority of fire protection districts pursuant to subdivision (a) of Section 13869.7. Further, nothing in this section shall require findings required by Section 17958.7 beyond those currently required for more restrictive building standards related to housing.

101.12 [For HCD 1 & HCD 2, SFM, BSC] Local Variances. For clarification purposes, the applicable sections of the Health and Safety Code are repeated here for clarity and read as follows:

Section 17958.5. Except as provided in Section 17922.6, in adopting the ordinances or regulations pursuant to Section 17958, a city or county may make such changes or modifications in the requirements contained in the provisions published in the California Building Standards Code and the other regulations adopted pursuant to Section 17922 as it determines, pursuant to the provisions of Section 17958.7, are reasonably necessary because of local climatic, geological or topographical conditions.

For purposes of this subdivision, a city and county may make reasonably necessary modifications to the requirements, adopted pursuant to Section 17922, contained in the provisions of the code and regulations on the basis of local conditions.

Section 18941.5. (b) Neither the California Building Standards Law contained in this part, nor the application of building standards contained in this section, shall limit the authority of a city, county, or city and county to establish more restrictive building standards reasonably necessary because of local climatic, geological, or topographical conditions. The governing body shall make the finding required by Section 17958.7 and the other requirements imposed by Section 17958.7 shall apply to that finding. Nothing in this section shall limit the authority of fire protection districts pursuant to subdivision (a) of Section 13869.7. Further, nothing in this section shall require findings required by Section 17958.7 beyond those currently required for more restrictive building standards related to housing.

101.13 [For HCD 1 & HCD 2, SFM] Annual Report. For clarification purposes, the applicable subsection of the Health and Safety Code section is repeated.

Section 17958.5 Except as provided in Section 17922.6, in adopting the ordinances or regulations pursuant to Section 17958, a city or county may make such changes or modifications in the requirements contained in the provisions published in the California Building Standards Code and the other regulations adopted pursuant to Section 17922, as it determines, pursuant to the provisions of Section 17958.7, are reasonable necessary because of local climatic, geological, or topographical conditions.

For purposes of this subdivision, a city or county may make reasonably necessary modification to the requirements, adopted pursuant to Section 17922, contained in the provisions of the code and regulations on the basis of local conditions.

101.14 [For HCD 1 & HCD 2, SFM] Findings, Filings and Rejections of Local Variances. For clarification purposes, the applicable subsection of the Health and Safety Code is repeated here for clarity and reads as follows:

Section 17958.7. (a) Except as provided in Section 17922.6, the governing body of a city or county, before making any modifications or changes pursuant to Section 17958.5, shall make an express finding that such modifications or changes are reasonably necessary because of local climatic, geological or topographical conditions. Such a finding shall be available as a public record. A copy of those findings, together with the modification or change expressly marked and identified to which each finding refers, shall be filed with the California Building Standards Commission. No modification or change shall become effective or operative for any purpose until the finding and the modification or change have been filed with the California Building Standards Commission.

101.15 [For SFM] Ratification by City Council. For clarification purposes, the applicable subsection of the Health and Safety Code section is repeated.

Sec. 13869.7. (a) Any fire-protection district organized pursuant to Part 2.7 (commencing with Section 13800) of Division 12 may adopt building standards relating to fire and panic safety that are more stringent than those building standards adopted by the State Fire Marshal and contained in the California Building Standards Code. For these purposes, the district board shall be deemed a legislative body and the district shall be deemed a local agency. Any changes or modifications that are more stringent than the requirements published in the California Building Standards Code relating to fire and panic safety shall be subject to subdivision (b) of Section 18941.5.

(b) Any fire protection district that proposes to adopt an ordinance pursuant to this section shall, not less than 30 days prior to noticing a proposed ordinance for public hearing, provide a copy of that ordinance, together with the adopted findings made pursuant to subdivision (a), to the city, county, or city and county where the ordinance will apply. The city, county, or city and county, may provide the district with written comments, which shall become part of the fire protection district's public hearing record.

(c) The fire-protection district shall transmit the adopted ordinance to the city, county, or city and county where the ordinance will apply. The legislative body of the city, county, or city and county, may ratify, modify or deny an adopted ordinance and transmit its determination to the district within 15 days of the determination. Any modification or denial of an adopted ordinance shall include a written statement describing the reasons for any modifications or denial. No ordinance adopted by the district shall be effective until ratification by the city, county, or city and county where the ordinance will apply. Upon ratification of an adopted ordinance, the city, county, or city and county, shall file a copy of the findings of the district, and any findings of the city, county, or city and county, together with the adopted ordinance expressly marked and identified to which each finding refers, with the Department of Housing and Community Development.

A purposes, the applicable section of the Health and Safety Code is repeated here for clarity and reads as follows:

Section 18942. (d) (1) Each city, county, and city and county, including charter cities, shall obtain and maintain with all revisions on a current basis, at least one copy of the building standards and other state regulations relating to buildings published in Title 8, 19, 20, 24 and 25 of the California Code of Regulations. These codes shall be maintained in the office of the building official responsible for the administration and enforcement of this part.

(2) This subdivision shall not apply to any city or county which contracts for the administration and enforcement of the provisions of this part with another local government agency that complies with this section.

### 101.17 [For DSA/AC] Application.

Vesting Authority. When adopted by a state agency, the provisions of this code shall be enforced by the appropriate enforcing agency, but only to the extent of authority granted to such agency by the State Legislature.

Following is a list of the state agencies that adopt building standards, the specific scope of application of the agency responsible

for enforcement, and the specific statutory authority of each agency to adopt and enforce such provisions of building standards of this code, unless otherwise stated.

### 101.17.1 AGR—Department of Food and Agriculture.

Application—Dairies and places of meat inspection.

Enforcing Agency—Department of Food and Agriculture.

Authority Cited—Agriculture Code Sections 18735, 19384, 33481 and 33731.

Reference—Agriculture Code Sections 18735, 19384, 33481 and 33731.

### 101.17.2 BOC—Board of Corrections.

Application—Local detention facilities.

Enforcing Agency—Board of Corrections.

Authority Cited—Penal Code Section 6030.

Reference—Penal Code Section 6030.

### 101.17.3 BSC—California Building Standards Commission.

Application—State buildings (all occupancies), including buildings constructed by the Trustees of the California State Universities and Colleges and the Regents of the University of California where no state agency has the authority to adopt building standards applicable to such buildings.

Enforcing Agency—State or local agency specified by the applicable provisions of law.

Authority Cited—Health and Safety Code Section 18934.5.

Reference—Health and Safety Code, Division 13, Part 2.5, commencing with Section 18901.

### 101.17.4 CA—Department of Consumer Affairs.

### 101.17.4.1 Board of Barber Examiners.

Application—Barber shops.

Enforcing Agency—State or local agency specified by applicable provisions of law.

Authority Cited—Business and Professions Code Section 6508.

Reference—Business and Professions Code Sections 6549, 6549.1, 6549.6, 6586.5, 6588, 6590, 6591 and 6593.

### 101.17.4.2 Board of Cosmetology.

Application—School of Cosmetology and Electrology.

Enforcing Agency—State or local agency specified by applicable provisions of law.

Authority Cited—Business and Professions Code Sections 7310 and 7311.

Reference—Business and Professions Code Sections 7310, 7311, 7384.5, 7384.6 and 7391.

### 101.17.4.3 Board of Funeral Directors. (Deleted)

## 101.17.4.4 Medical Board of California; Acupuncture Committee.

Application—Acupuncture offices.

Enforcing Agency—State or local agency specified by applicable provisions of law.

Authority Cited—Business and Professions Code Section 4933.

Reference—Business and Professions Code Section 4955.

### 101.17.4.5 Board of Pharmacy.

Application—Pharmacies.

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Enforcing Agency—State or local agency specified by applicable provisions of law.

 $Authority \ Cited-Business\ and\ Professions\ Code\ Section\ 4008.$ 

Reference—Business and Professions Code Sections 4008 and 4081.

### 101.17.4.6 Board of Examiners in Veterinary Medicine.

Application—Veterinary facilities.

Enforcing Agency—State or local agency specified by applicable provisions of law.

Authority Cited—Business and Professions Code Section 4808.

Reference—Business and Professions Code Section 4854.

### 101.17.4.7 Structural Pest Control Board.

Application—Structural pest control.

Enforcing Agency—Structural Pest Control Board.

Authority Cited—Business and Professions Code Sections 8516, 8525, 8538 and 8674

Reference—Business and Professions Code Sections 8516, 8538 and 8674.

### 101.17.5 CEC—California Energy Commission.

Application—All occupancies.

Enforcing Agency—Local building department or the California Energy Commission.

Authority Cited—Public Resources Code Sections 25402, 25920 and 25922.

Reference—Public Resources Code Sections 25402, 25910, 25920, 25921 and 25922.

### 101.17.6 DHS—Department of Health Services.

Application—(1) Section 305.5 applies to organized camps; (2) Section 431A applies to organized camps; (3) Section 432A applies to laboratory animal quarters; (4) Chapter 31B applies to public swimming pools and organized camps; (5) Chapter 31C applies to radiation protection; (6) Chapter 31D applies to commissaries serving mobile food preparation vehicles; (7) Section 433A applies to wild animal quarantine facilities.

Enforcing Agency—The Department of Health Services and the local health officer.

Authority Cited—Health and Safety Code Sections 436.50, 100275, 18897.2, 24102, 25811 and 25990.5.

Reference—Health and Safety Code Sections 436.50, 100275, 18897.2, 24102, 25811, 25990.5 and 27791.

### 101.17.7 (Deleted)

### 101.17.8 DWR—Department of Water Resources.

Application—Single-family residences that construct, install or alter gray-water systems for landspace irrigation.

Enforcing Agency—Local building department or the Department of Water Resources.

Authority Cited—Water Code Sections 14875 through 14877.3. Reference—Water Code Sections 14875 through 14877.3.

## 101.17.9 [HCD 1]—Department of Housing and Community Development.

Application—Hotels, motels, timeshares, lodging houses, apartment houses, dwellings, dormitories, condominiums, shelters for homeless persons, congregate residences, employee housest.

ing and factory-built housing and other types of dwellings containing sleeping accommodations with or without common toilet or cooking facilities.

### 101.17.9.1 [HCD 1A/C]—Access Compliance.

Application—Covered multifamily dwelling units as defined in Chapter 11A including but not limited to lodging houses, dormitories, time-shares, condominiums, shelters for homeless persons, congregate residences, apartment houses, dwellings, employee housing, factory-built housing and other types of dwellings containing sleeping accommodations with or without common toilet or cooking facilities which are not transient lodging as defined in Chapter 11A and subject to the requirements of the Division of the State Architect, Access Compliance DSA/AC.

When the abbreviation "HCD 1/AC" appears in this code, it shall mean the provisions of the California Department of Housing and Community Development require specific accommodations for persons with disabilities. These provisions shall apply to the following:

- 1. All newly-constructed covered multifamily dwellings as defined in Chapter 11A.
- 2. New common use areas as defined in Chapter 11A serving existing covered multifamily dwellings.
- 3. Additions to existing buildings, where the addition alone meets the definition of a covered multifamily dwelling as defined in Chapter 11A.
  - 4. Common-use areas serving covered multifamily dwellings. NOTE: See Chapter 11A, Section 1102A.

These building standards generally do not apply to public accommodations such as hotels and motels. Public use areas, public accommodatins, and housing which is publicly funded as defined in Chapter 2, Chapter 11A, and Chapter 11B of this code are subject to provisions of the Division of the State Architect (DSA/AC) and are referenced in Section 101.17.11.

Authority Cited—Health and Safety Code Sections 17040, 17921, 17922, 19990 and Government Code Section 12955.1.

Reference—Health and Safety Code Sections 17000 through 17060, 17910 through 17990, 19960 through 19997 and Government Code Section 12955.1.

## 101.17.10 [HCD 2]—Department of Housing and Community Development.

Application—Permanent buildings and permanent accessory buildings or structures constructed within mobile home parks, and special-occupancy parks that are under the control and ownership of the park operator.

Enforcing Agency—Local building department or other local agency responsible for the enforcement of Health and Safety Code Division 13, Part 2.1 commencing with Section 18200 through 18700 or the Department of Housing and Community Development.

Authority Cited—Health and Safety Code Section 18300.

Reference—Health and Safety Code Sections 18200 through 18700.

## 101.17.11 [For DSA/AC]—Access Compliance, Division of the State Architect.

General. To assure that barrier-free design is incorporated in all buildings, facilities, site work and other improvements to which this code applies in compliance with state law to assure that these improvements are accessible to and usable by persons with disabilities. Additions, alterations and structural repairs in all buildings and facilities shall comply with these provisions for new buildings, except as otherwise provided and specified herein.

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The provisions of these regulations shall apply to any portable buildings leased or owned by a school district, and shall also apply to temporary and emergency buildings and facilities.

In addition, to incorporate standards at least as restrictive as those required by the federal government for barrier-free design under (1) Title III (Public Accommodations and Commercial Facilities), Subpart D (New Construction and Alteration) and Appendix A (Americans with Disabilities Act Accessibility Guidelines) (see 28 C.F.R., Part 36), and (2) Title II (Public Entities), Section 35.151 (New Construction and Alterations) (see 28 C.F.R., Part 35) both from the Americans with Disabilities Act of 1990, and (3) under the Fair Housing Amendments of 1988. Some of these regulations may be more stringent than state law in order to meet the federal requirement.

1. Application. Publicly funded buildings, structures, sidewalks, curbs and related facilities shall be accessible to and usable by persons with disabilities as follows:

NOTE: See Government Code commencing with Section 4450.

- 1.1 All buildings, structures, sidewalks, curbs and related facilities constructed in the state by the use of state, county or municipal funds, or the funds of any political subdivision of the state.
- 1.2 All buildings, structures and facilities that are leased, rented, contracted, sublet or hired by any municipal county, or state division of government, or by a special district.
- 1.3 All publicly funded buildings used for congregate residences or for one- or two-family dwelling unit purposes shall conform to the provisions applicable to living accommodations.
- 1.4 All existing publicly funded buildings and facilities when alterations, structural repairs or additions are made to such buildings or facilities. For detailed requirements on existing buildings, see Chapter 11B, Division IV.
- 1.5 With respect to buildings, structures, sidewalks, curbs and related facilities not requiring a building permit, building standards published in the California Building Standards Code relating to access for persons with disabilities and other regulations adopted pursuant to Government Code Section 4450, and in effect at the time construction is commenced, shall be applicable.
- 2. **Application.** All privately funded public accommodations, as defined, and commercial facilities, as defined, shall be accessible to persons with physical disabilities as follows:

**NOTE:** See Health and Safety Code commencing with Section 19952.

**EXCEPTION:** Certain types of privately funded multistory buildings do not require installation of an elevator to provide access above and below the first floor. See Chapter 11B.

**NOTE:** Exceptions for multistoried buildings formerly located in this section have been moved to Chapter 11B.

- 2.1 Any building, structure, facility, complex, or improved area, or portions thereof, which are used by the general public.
- 2.2 Any sanitary facilities which are made available for the public, clients or employees in such accommodations or facilities.
- 2.3 Any curb or sidewalk intended for public use that is constructed in this state with private funds.

2.4 All existing privately funded public accommodations when alterations, structural repairs or additions are made to such public accommodations as set forth under Chapter 11B.

## 3. Application—Public Housing and Private Housing Available for Public Use.

NOTE: See Government Code Sections 4450 and 12955.1 (d).

### 4. Enforcing Agency.

- 4.1 The director of General Services where state funds are utilized for any project or where funds of counties, municipalities or other political subdivisions are utilized for the construction of elementary, secondary or community college projects.
- 4.2 The governing bodies where funds of counties, municipalities or other political subdivisions are utilized except as otherwise provided above.
- 4.3 The building department of every city, county, or city and county within the territorial area of its city, county, or city and county, where private funds are utilized. "Building department" means the department, bureau or officer charged with the enforcement of laws or ordinances regulating the erection or construction, or both the erection and construction, of buildings.
- 5. Special Conditions for Persons with Disabilities Requiring Appeals Action Ratification. Whenever reference is made in these regulations to this section, the findings and determinations required to be rendered by the local enforcing agency shall be subject to ratification through an appeals process.
  - 6. Authority Cited—Government Code Section 4450.
- 7. **Reference**—Government Code Sections 4450 through 4460, 12955.1(d) and Health and Safety Code Sections 18949.1, 19952 through 19959.

## 101.17.12 DSA/SS—Division of the State Architect-Structural Safety.

Application—Public elementary and secondary schools, community college buildings and state-owned or state-leased essential services buildings.

Enforcing Agency—DSA/SS.

Authority Cited—Education Code Sections 17310 and 81142, and Health and Safety Code Section 16022.

Reference—Education Code Sections 17280 through 17316, and 81130 through 81147, and Health and Safety Code Sections 16000 through 16023.

The Division of the State Architect has been delegated the responsibility and authority by the Department of General Services to review and approve the design and observe the construction of public school buildings and state-owned or state-leased essential services buildings.

The applicable building standards are as follows:

### 1. Administrative Regulations.

- 1.1 School Buildings; Sections 4-301 through 4-355, Group 1, Chapter 4, Part 1, Title 24, California Code of Regulations.
- 1.2 State-owned or State-leased Essential Services Buildings; Sections 4-201 through 4-249, Chapter 4, Part 1, Title 24, California Code of Regulations.

### 2. Technical Regulations.

Various model codes adopted by reference into the California Building Standards Code, Title 24, Parts 2, 3, 4, 5, 6, 7 and 12, California Code of Regulations, for school buildings, community colleges and state-owned or state-leased essential service buildings.

The Division of the State Architect, in the performance of its duties, coordinates with other state offices as follows:

- 2.1 California Building Standards Commission
- 2.2 Office of Statewide Health Planning and Development
- 2.3 Office of the State Fire Marshal
- 2.4 Real Estate Services Division
- 2.5 Office of Public School Construction

## 101.17.13 OSHPD—Office of Statewide Health Planning and Development.

### 1. **OSHPD 1**

Application—General acute-care hospitals and acute psychiatric hospitals, excluding distinct part units or distinct part freestanding buildings providing skilled nursing or intermediate-care services. For Structural Regulations: Skilled nursing facilities and/or intermediate care facilities except those skilled nursing facilities and intermediate care facilities of single-story, Type V, wood or light steel-frame construction.

Enforcing Agency—OSHPD. The office shall enforce the Division of the State Architect access compliance regulations and the regulations of the Office of the State Fire Marshal for the above stated facility types.

Authority Cited—H&SC §127010, 127015, 1275 and 129850. Reference—H&SC §127010, 127015, 1275 and 129675 through 129990, H&SC §19958 and H&SC §129680.

### 2. **OSHPD 2**

Application—Skilled nursing facilities, and intermediate-care facilities, including distinct part skilled nursing and intermediate-care services on a general acute-care or acute psychiatric hospital license, provided either in a separate unit or a freestanding building. For structural regulations: Single-story, Type V skilled nursing and/or intermediate-care facilities utilizing wood or light steel-frame construction.

Enforcing Agency—OSHPD. The office shall also enforce the Division of the State Architect access compliance regulations and the regulations of the Office of the State Fire Marshal for the above stated facility type.

Authority Cited—H&SC §127010, 127015, 1275 and 129850. Reference—H&SC §127010, 127015, 1275 and 129680.

### 3. **OSHPD 3**

Application—Licensed Clinics.

Enforcing Agency—Local building department.

Authority Cited—H&SC §127010, 127015 and 1226.

Reference—H&SC §127010, 127015 and 1226, GC §54350, H&SC §129885 and State Constitution Article 11 §7.

### 4. **OSHPD 4**

Application—Correctional Treatment Centers.

Enforcing Agency—Office of Statewide Health Planning and Development. The Office shall also enforce the Division of the State Architect access compliance regulations and the regulations of the Office of the State Fire Marshal for the above stated facility types.

Authority Cited—H&SC §127010, 127015 and 1226.

Reference—H&SC §127010, 127015, 1275 and 129675 through 129990.

### 101.17.14 SFM—Office of the State Fire Marshal.

Any building or structure used or intended for use as an asylum, jail, mental hospital, hospital, home for the elderly, children's nursery, children's home or institution, school or any similar occupancy of any capacity.

Any theater, dancehall, skating rink, auditorium, assembly hall, meeting hall, nightclub, fair building, or similar place of assemblage where 50 or more persons may gather together in a building, room or structure for the purpose of amusement, entertainment, instruction, deliberation, worship, drinking or dining, awaiting transportation, or education.

Authority Cited—Health and Safety Code Section 13143 and 18949.2(b), (c).

Reference—Health and Safety Code Sections 13143, 1566.45, 1531.3, and 1568.0832.

### Small Family Day-care Homes

Authority Cited—Health and Safety Code Sections 1597.45, 1597.54, 13143 and 17921.

Reference—Health and Safety Code Section 13143.

### Large Family Day-care Homes

Authority Cited—Health and Safety Code Sections 1597.46, 1597.54 and 17921.

Reference—Health and Safety Code Section 13143.

## Residential Facilities and Residential Facilities for the Elderly

Authority Cited—Health and Safety Code Sections 13113, 13131.5 and 13133.

Reference—Health and Safety Code Section 13143 and 1569.72.

## Any state institution or other state-owned or state-occupied building.

Authority Cited—Health and Safety Code Section 13108. Reference—Health and Safety Code Section 13143.

### High-rise Structures

Authority Cited—Health and Safety Code Section 13211. Reference—Health and Safety Code Section 13143.

### **Motion Picture Production Studios**

Authority Cited—Health and Safety Code Section 13143.1. Reference—Health and Safety Code Section 13143.

(Text continues on page 1-6.1.)

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## Chapter 2 DEFINITIONS AND ABBREVIATIONS

### **SECTION 201 — DEFINITIONS**

**201.1 General.** For the purpose of this code, certain terms, phrases, words and their derivatives shall be construed as specified in this chapter and elsewhere in this code where specific definitions are provided. Terms, phrases and words used in the singular include the plural and the plural the singular. Terms, phrases and words used in the masculine gender include the feminine and the feminine the masculine.

Where terms, phrases and words are not defined, they shall have their ordinary accepted meanings within the context with which they are used. Webster's Third New International Dictionary of the English Language, Unabridged, copyright 1986, shall be considered as providing ordinarily accepted meanings.

### 201.2 Standards of Quality.

**201.2.1 General.** The standards listed below labeled a "UBC Standard" are also listed in Chapter 35, Part II, and are part of this code. The other standards listed below are recognized standards (see Sections 3503 and 3504).

### 201.2.2 Noncombustible material.

UBC Standard 2-1, Noncombustible Material Test

### 201.2.3 Burning characteristics of building materials.

- 1. UBC Standard 8-1, Test Method for Surface-burning Characteristics of Building Materials
- 2. UBC Standard 23-4, Fire-retardant-treated Wood Tests on Durability and Hygroscopic Properties
- 3. UBC Standard 26-5, Chamber Method of Test for Measuring the Density of Smoke from the Burning or Decomposition of Plastic Materials
  - 4. UBC Standard 26-6, Ignition Properties of Plastics

### 201.2.4 Corrosives and irritants.

- 1. 49 C.F.R. 173, Appendix A, Testing for Corrosiveness
- 2. 16 C.F.R. 1500.41 and 1500.42, Methods of Testing Primary Irritant Substances and Test for Eye Irritants

### 201.2.5 Ranking of hazardous materials.

UFC Standard 79-3, Identification of the Health, Flammability and Reactivity of Hazardous Materials

### 201.2.6 Classification of plastics.

UBC Standard 26-7, Method of Test for Determining Classification of Approved Light-transmitting Plastics

### SECTION 202 — A

ACCESS FLOOR SYSTEM is an assembly consisting of panels mounted on pedestals to provide an under-floor space for the installations of mechanical, electrical, communication or similar systems or to serve as an air-supply or return-air plenum.

ACCESSIBLE. [For HCD 1/AC] See Chapter 11A, Section 1107A.1-A. [For DSA/AC] See Chapter 11A, Section 1107A.1-A and Chapter 11B, Section 1102B.

ACCESSIBILITY. [For HCD 1/AC] See Chapter 11A, Section 1107A.1-A. [For DSA/AC] See Chapter 11A, Section 1107A.1-A and Chapter 11B, Section 1102B.

ACCESSIBLE ELEMENT [For DSA/AC] is an element specified by the regulations adopted by the Division of the State Architect/Access Compliance.

ACCESSIBLE LOCATION [For DSA/AC] is a location which can be reached by an employee standing on the floor, platform, runway or other permanent working area.

ACCESSIBLE ROUTE OF TRAVEL. [For HCD 1/AC] See Chapter 11A, Section 1107A.1-A. [For DSA/AC] See Chapter 11A, Section 1107A.1-A and Chapter 11B, Section 1102B.

ACCESSIBLE SPACE [For DSA/AC] is a space that complies with the regulations adopted by the Division of the State Architect/Access Compliance.

**ACCREDITATION BODY** is an approved, third-party organization that initially accredits and subsequently monitors, on a continuing basis, the competency and performance of a grading or inspection agency related to carrying out specific tasks.

ACI [For HCD 1 & HCD 2] is the American Concrete Institute, P.O. Box 9094, Farmington Hills, Michigan 48333.

ADAPTABLE DWELLING UNIT. [For HCD 1/AC] See Chapter 11A, Section 1107A.1-A. [For DSA/AC] See Chapter 11A, Section 1107A.1-A.

**ADDITION** is an extension or increase in floor area or height of a building or structure.

**AEROSOL** is a product that is dispensed by a propellant from a metal can up to a maximum size of 33.8 fluid ounces (1000 mL) or a glass or plastic bottle up to a size of 4 fluid ounces (118.3 mL), other than a rim-vented container.

AGED HOME OR INSTITUTION [For SFM] is a facility used for the housing of persons 65 years of age or older in need of care and supervision. (See definition of "care and supervision," Section 204.)

**AGRICULTURAL BUILDING** is a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products. This structure shall not be a place of human habitation or a place of employment where agricultural products are processed, treated or packaged, nor shall it be a place used by the public.

AISC [For HCD 1 & HCD 2] is the American Institute of Steel Construction, Inc., One East Wacker Drive, Suite 3100, Chicago, Illinois 60601-2001.

AISLE [For DSA/AC] is a circulation path between objects such as seats, tables, merchandise, equipment, displays, shelves, desks, etc.

AISLE, EMPLOYEE AREAS, [For DSA/AC] (as required for architectural accessibility) is a space that serves as a passageway, which is created by architectural components such as walls, fixed cabinetry or fixtures and not moveable components such as furniture.

**ALLEY** is any public way or thoroughfare less than 16 feet (4877 mm) but not less than 10 feet (3048 mm) in width that has been dedicated or deeded to the public for public use.

**ALTER** or **ALTERATION** [For DSA/AC] is any change, addition or modification in construction or occupancy or structural repair or change in primary function to an existing structure other than repair or addition.

AMUSEMENT BUILDING. See Section 408.2.

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ANSI is the American National Standards Institute, 1430 Broadway, New York, New York 10018.

**APARTMENT HOUSE** is any building or portion thereof that contains three or more dwelling units and, for the purpose of this code, includes residential condominiums.

**APPROVED,** as to materials and types of construction, refers to approval by the building official as the result of investigation and tests conducted by the building official, or by reason of accepted principles or tests by recognized authorities, technical or scientific organizations.

[For HCD 1 & HCD 2, DSA/AC] Approved means meeting the approval of the enforcement agency, except as otherwise provided by law, when used in connection with any system, material, type of construction, fixture or appliance as the result of investigations and tests conducted by the agency, or by reason of accepted principles or tests by national authorities, technical, health, or scientific organizations or agencies.

NOTES: 1. See Health and Safety Code Section 17920 for "approved" as applied to residential construction and buildings or structures accessory thereto, as referenced in Section 101.17.9.

- 2. See Health and Safety Code Section 17921.1 for "approved" as applied to the use of hotplates in residential construction referenced in Section 101.17.9.
- 3. See Health and Safety Code Section 17921.3 for "approved" as applied to low-flush water closets in residential construction, as referenced in Section 101.17.9.
- 4. See Health and Safety Code Section 19966 for "approved" as applied to factory-built housing as referenced in Section 101.17.9.

APPROVED AGENCY is an established and recognized agency regularly engaged in conducting tests or furnishing inspection services, when such agency has been approved.

APPROVED FABRICATOR is an established and qualified person, firm or corporation approved by the building official pursuant to Section 1701.7 of this code.

APPROVED LISTING AGENCY [For HCD 1 & HCD 2] is any agency approved by the enforcement agency unless otherwise provided by statute, which is in the business of listing and labeling and which makes available at least an annual published report of such listings in which specific information is included that the product has been tested to recognized standards and found to com-

APPROVED TESTING AGENCY [For DSA/AC, HCD 1 & HCD 2] is any agency which is determined by enforcement agency, except as otherwise provided by statute, to have adequate personnel and expertise to carry out the testing of systems, materials, type of construction fixtures or appliances.

AREA. See "floor area."

**ASSEMBLY BUILDING** is a building or portion of a building used for the gathering together of 50 or more persons for such purposes as deliberation, education, instruction, worship, entertainment, amusement, drinking or dining, or awaiting transportation.

[For DSA/AC, SFM] Any building or structure or portion thereof used or intended to be used for the showing of motion pictures when an admission fee is charged and when such building or structure is open to the public and has a capacity of 10 or more persons.

ASSISTIVE DEVICE. [For HCD 1/AC] See Chapter 11A, Section 1107A.1-A. [For DSA/AC] See Chapter 11A, Section 1107A.1-A.

**ASTM** is the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428.

**ATRIUM** is an opening through two or more floor levels other than enclosed stairways, elevators, hoistways, escalators, plumbing, electrical, air-conditioning or other equipment, which is closed at the top and not defined as a mall. Floor levels, as used in this definition, do not include balconies within assembly occupancies or mezzanines that comply with Section 507.

ATTIC STORY [For HCD 1 & HCD 2] is any story immediately below the roof and wholly or partly within the roof framing, designed, arranged or built for business or storage use.

AUTOMATIC, as applied to fire-protection devices, is a device or system providing an emergency function without the necessity of human intervention and activated as a result of a predetermined temperature rise, rate of rise of temperature or increase in the level of combustion products.

AUTOMATIC DOOR. [For HCD 1/AC] See Chapter 11A, Section 1107A.1-A. [For DSA/AC] See Chapter 11A, Section 1107A.1-A and Chapter 11B, Section 1102B.

### SECTION 203 — B

**BALCONY** is that portion of the seating space of an assembly room, the lowest part of which is raised 4 feet (1219 mm) or more above the level of the main floor and shall include the area providing access to the seating area or serving only as a foyer.

**BALCONY, EXTERIOR EXIT.** See Section 1006.3.

**BASEMENT** is any floor level below the first story in a building, except that a floor level in a building having only one floor level shall be classified as a basement unless such floor level qualifies as a first story as defined herein.

BATHROOM. [For HCD 1/AC] See Chapter 11A, Section 1107A.2-B. [For DSA/AC] See Chapter 11A, Section 1107A.2-B.

BEDRIDDEN PERSON [For SFM] means a person, requiring assistance in turning and repositioning in bed, or being unable to independently transfer to and from bed, except in facilities with appropriate and sufficient care staff, mechanical devices if necessary, and safety precautions as determined in Title 22 regulations, by the Director of Social Services or his or her designated representative.

The Director of Social Services or his or her designated representative shall make the determination of the bedridden status of persons with developmental disabilities, in consultation with the Director of Developmental Services or his or her designated representative.

The Director of Social Services or his or her designated representative shall make the determination of the bedridden status of all other persons with disabilities who are not developmentally

**BOILER, HIGH-PRESSURE,** is a boiler furnishing steam at pressures in excess of 15 pounds per square inch (psi) (103.4 kPa) or hot water at temperatures in excess of 250°F (121°C), or at pressures in excess of 160 psi (1103.2 kPa).

**BOILER ROOM** is any room containing a steam or hot-water boiler.

BUILDING [For DSA/AC, HCD 1 & HCD 2, SFM, DSA/AC] is any structure as to which state agencies have regulatory power, used or intended for supporting or sheltering any use or occupancy, housing or enclosure of persons, animals, chattels, equipment or property of any kind, and also includes structures wherein things may be grown, made, produced, kept, handled, stored or disposed of, and all appendages, accessories, apparatus, appliances and equipment installed as a part thereof.

"Building" shall not include machinery, equipment or appliances installed for manufacture or process purposes only,

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C nor shall it include any construction installations which are not a C part of C include C Code. part of a building, any tunnel, mine shaft, highway or bridge, or include any house trailer or vehicle which conforms to the Vehicle

NOTE: BUILDING shall have the same meaning as defined in Health and Safety Code Section 17920 and 18908 for the applications specified in Sections 101.17.9 and 101.17.10.

BUILDING ENTRANCE ON AN ACCESSIBLE ROUTE.

[For HCD 1/AC] See Chapter 11A, Section 1107A.2-B. [For  $_{\mathrm{C}}^{\mathrm{C}}$   $_{\mathrm{L}}^{\mathrm{L}}$ DSA/AC] See Chapter 11A, Section 1107A.2-B.

BUILDING, EXISTING, [For HCD 1 & HCD 2, DSA/ ACI is a building erected prior to the adoption of this code, or one Lfor which a legal building permit has been issued.

**BUILDING OFFICIAL** [For DSA/AC, HCD 1 & HCD 2] is L the officer or other designated authority charged with the administration and enforcement of this code, or the building official's duly

(Text continues on page 1-9.)

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L C authorized representative [for SFM] in accordance with state law, L C Health and Safety Code Section 13146, in occupancies regulated L C by the State Fire Marshal.

**BULK HANDLING** is the transferring of flammable or combustible liquids from tanks or drums into smaller containers for distribution.

### SECTION 204 — C

[For SFM] CARE AND SUPERVISION means any one or more of the following activities provided by a person or facility to meet the needs of the clients:

Assistance in dressing, grooming, bathing and other personal hygiene.

Assistance with taking medication.

Central storing and/or distribution of medications.

Arrangement of and assistance with medical and dental care.

Maintenance of house rules for the protection of clients.

Supervision of client schedules and activities.

Maintenance and/or supervision of client cash resources or property.

Monitoring food intake or special diets.

Providing basic services required by applicable law and regulation to be provided by the licensee in order to obtain and maintain a community-care facility license.

**CAST STONE** is a precast building stone manufactured from portland cement concrete and used as a trim, veneer or facing on or in buildings or structures.

C.C.R. [For HCD 1 & HCD 2, DSA/AC, SFM, DSA/SS] means the California Code of Regulations.

CATASTROPHICALLY INJURED [For SFM], as termed, means a person whose origin of disability was acquired through trauma or nondegenerative neurologic illness, for whom it has been determined by the Department of Health Services Certification and Licensing that active rehabilitation would be beneficial.

CELLULAR CONCRETE [For HCD 1 & HCD 2] is a lightweight product consisting of portland cement and selected gas-forming chemicals or foaming agents that create homogeneous voids in the hardened concrete.

**CENTRAL HEATING PLANT** is environmental heating equipment that directly utilizes fuel to generate heat in a medium for distribution by means of ducts or pipes to areas other than the room or space in which the equipment is located.

C.F.R. [For HCD 1 & HCD 2] is the Code of Federal Regula-L A tions, a publication of regulations in the United States of America available from the Superintendent of Documents, United States L A Government Printing Office, Washington, DC 20402-9325.

CHIEF OF THE FIRE DEPARTMENT is the head of the fire department or a regularly authorized deputy.

CHILD-CARE CENTER [For SFM] is any facility of any capacity other than a large or small family day-care home as defined in these regulations in which less than 24-hour-per-day nonmedical supervision is provided for children in a group setting.

CHILD OR CHILDREN [For SFM] is a person or persons under the age of 18 years.

CHRONICALLY ILL. [For SFM] See "terminally ill."

CIRCULATION PATH [For DSA/AC] is an exterior or interior way of passage from one place to another for pedestrians, in-

cluding, but not limited to, walks, hallways, courtyards, stairways and stair landings.

CLOSED-CIRCUIT TELEPHONE [For DSA/AC] is a telephone with dedicated line(s) such as a house phone, courtesy phone or phone that must be used to gain entrance to a facility.

### **COMBUSTIBLE LIQUID.** See the Fire Code.

**COMMERCE** [For HCD 2, DSA/AC] is travel, trade, traffic, commerce, transportation, or communication (1) within the state; (2) among several states; (3) between any foreign country or any territory or possession and any state; or (4) between points in the same state, but through another state or foreign country.

COMMERCIAL FACILITIES [For HCD2, DSA/AC] are facilities that are intended for nonresidential use and whose operations will affect commerce, including factories, warehouses, office buildings, and other buildings in which employment may occur. Commercial facilities shall not includerailroad locomotives, railroad freight cars, railroad cabooses, railroad cars covered under Title III of the Americans with Disabilities Act of 1990, or facilities that are covered or expressly exempted from coverage under the Fair Housing Amendment Act of 1988 (42 USC 3601-3631, et seq.).

COMMON USE AREAS. [For HCD 1/AC] See Chapter 11A, Section 1107A.3-C. [For DSA/AC] See Chapter 11A, Section 1107A.3-C and Chapter 11B, Section 1102B.

**COMMUNITY KITCHEN**[For HCD1] is a separate room or building in employee housing used or intended to be used by the occupants of the employee housing for cooking or preparing their own meals.

### CONDOMINIUM, RESIDENTIAL. See "apartment house."

CONGREGATE LIVING HEALTH FACILITY (CLHF) [For SFM], as termed, is a residential home with a capacity of no more than six beds, which provides inpatient care, including the following basic services: medical supervision, 24-hour skilled nursing and supportive care, pharmacy, dietary, social recreational, and at least provides services for persons who are diagnosed with a terminal illness or who are catastrophically and severely disabled.

CONGREGATE RESIDENCE is any building or portion thereof that contains facilities for living, sleeping and sanitation, as required by this code, and may include facilities for eating and cooking, for occupancy by other than a family. A congregate residence may be a shelter, convent, monastery, dormitory, fraternity or sorority house, but does not include jails, hospitals, nursing homes, hotels or lodging houses.

**CONTROL AREA** is a building or portion of a building within which the exempted amounts of hazardous materials may be stored, dispensed, handled or used.

CORROSIVE is a chemical that causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the site of contact. A chemical is considered to be corrosive if, when tested on the intact skin of albino rabbits by the method described in the United States Department of Transportation in Appendix A to 49 C.F.R. 173, it destroys or changes irreversibly the structure of the tissue at the site of contact following an exposure period of four hours. This term shall not refer to action on inanimate surfaces.

**COURT** is a space, open and unobstructed to the sky, located at or above grade level on a lot and bounded on three or more sides by walls of a building.

COVERED MULTIFAMILY DWELLINGS. [For HCD 1/AC] See Chapter 11A, Section 1107A.3-C. [For DSA/AC] See Chapter 11A, Section 1107A.3-C.



CROSS SLOPE. [For HCD 1/AC] See Chapter 11A, Section 1107A.3-C and Chapter 11B, Section 1102B. [For DSA/AC] See Chapter 11A, Section 1107A.3-C and Chapter 11B, Section 1102B.

CURB CUT. [For HCD 1/AC] See Chapter 11A, Section 1107A.3-C and Chapter 11B, Section 1102B. [For DSA/AC] See Chapter 11A, Section 1107A.3-C and Chapter 11B, Section 1102B.

CURB LINE. [For DSA/AC] See Chapter 11B, Section 1102B.

CURB RAMP. [For HCD 1/AC] See Chapter 11A, Section 1107A.3-C. [For DSA/AC] See Chapter 11A, Section 1107A.3-C and Chapter 11B, Section 1102B.

### SECTION 205 — D

**DANGEROUS BUILDINGS CODE** is the *Uniform Code for the Abatement of Dangerous Buildings* promulgated by the International Conference of Building Officials, as adopted by this jurisdiction.

DAY CARE [For SFM] shall, for the purposes of these regulations, mean the care of persons during any period of a 24-hour day where permanent sleeping accommodations are not provided.

**NOTE:** "Day care" shall not be construed to preclude the use of cots or mats for napping purposes, provided all employees, attendants and staff personnel are awake and on duty in the area where napping occurs.

DAY-CARE HOME, LARGE FAMILY, [For SFM] is a provider's own home licensed to provide day care for periods less than 24 hours per day for nine to 14 persons, including children under the age of 10 years who reside at the home.

DAY-CARE HOME, SMALL FAMILY, [For SFM] is a home which provides family day care to eight or fewer children, including children under the age of 10 years who reside at the home, in the providers own home, for periods of less than 24 hours per day. Small family day-care homes are exempted from state fire- and life-safety regulations other than those state and local standards applicable to Group R, Division 3 Occupancies. [See Health and Safety Code, Section 13143 (b).]

**DEPARTMENT [For HCD 1 & HCD 2]** is the Department of Housing and Community Development.

**DETACHED BEDROOM [For HCD 1 & HCD 2]** is a separate accessory structure, without kitchen or sanitary facilities, designed for and intended to be used as a sleeping or living facility for one family, to be employed in conjunction with a main structure(s), which includes kitchen and sanitation facilities.

DETACHED SINGLE-FAMILY DWELLING [For HCD 1 & HCD 2] is any single-family dwelling which is separated from adjacent property lines by 3 feet (914 mm) or more or is separated from adjacent buildings by 6 feet (1829 mm) or more.

**DETECTABLE WARNING.** [For HCD 1/AC] See Chapter 11A, Section 1107A.4-D. [For DSA/AC] See Chapter 11A, Section 1107A.4-D and Chapter 11B, Section 1102B.

**DIRECTIONAL SIGN** [For HCD 1 & HCD 2, DSA/AC] is a publicly displayed notice which indicates by use of words or symbols a recommended direction or route of travel.

**DISABILITY** [For DSA/AC] is (1) a physical or mental impairment that substantially limits one or more of the major life activities of an individual, or (2) a record of such an impairment, or (3) being regarded as having such an impairment.

DISABLED. [For DSA/AC] See "disability."

**DISPENSING** is the pouring or transferring of any material from a container, tank or similar vessel, whereby vapors, dusts, fumes, mists or gases may be liberated to the atmosphere.

**DISPERSAL AREA, SAFE.** See Section 1008.2.

**DORMITORY** [For HCD 1/AC] is a room occupied by more than two persons.

**DORMITORY** [For DSA/AC] is a room occupied by more than two guests.

**DRAFT STOP** is a material, device or construction installed to restrict the movement of air within open spaces of concealed areas of building components such as crawl spaces, floor-ceiling assemblies, roof-ceiling assemblies and attics.

**DWELLING** is any building or portion thereof that contains not more than two dwelling units.

**DWELLING UNIT** is any building or portion thereof that contains living facilities, including provisions for sleeping, eating, cooking and sanitation, as required by this code, for not more than one family, or a congregate residence for 10 or less persons. [For HCD 1/AC] See Chapter 11A, Section 1107A.4-D. [For DSA/AC] See Chapter 11A, Section 1107A.4-D and Chapter 11B, Section 1102B.

### SECTION 206 — E

**EFFICIENCY DWELLING UNIT** [For HCD 1] is a dwelling unit containing only one habitable room and includes an efficiency unit as defined by Health and Safety Code Section 17958.1.

**ELECTRICAL CODE** is the *National Electrical Code* promulgated by the National Fire Protection Association, as adopted by this jurisdiction.

ELECTRIC VEHICLE [For SFM] is an automotive-type vehicle for highway use, such as passenger automobiles, buses, trucks, vans and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array or other source of electric current. For the purpose of this chapter, electric motorcycles and similar type vehicles and off-road self-propelled electric vehicles such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, boats and the like, are not included.

**ELEVATOR CODE** is the safety code for elevators, dumb-waiters, escalators and moving walks as adopted by this jurisdiction (see Appendix Chapter 30).

ELEVATOR, PASSENGER. [For DSA/AC] See Chapter 11B, Section 1102B.

**EMERGENCY CONTROL STATION** is an approved location on the premises of a Group H, Division 6 Occupancy where signals from emergency equipment are received and that is continually staffed by trained personnel.

ENFORCEMENT. [For HCD 1 & HCD 2] Subject to other provisions of law, the applicable section of the Health and Safety Code is repeated here for clarity and read as follows:

Section 17920. "Enforcement" means diligent effort to secure compliance, including review of plans and permit applications, response to complaints, citation of violations, and other legal process. Except as otherwise provided in this part, "enforcement" may, but need not, include inspections of existing buildings on which no complaint or permit application has been filed, and effort to secure compliance as to these existing buildings.

ENFORCING AGENCY [For HCD 1 & HCD 2, DSA/AC, OSHPD 1, 2, 3 & 4] is the designated department or agency as specified by statute or regulation.

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ENTRANCE [For DSA/AC] shall mean any entrance to a facility which has a substantial flow of pedestrian traffic to any specific major function of the facility.

EQUIVALENT FACILITATION. [For HCD1/AC] See Chapter 11A, Section 1107A.5-E. [For DSA/AC] See Chapter 11A, Section 1107A.5-E and Chapter 11B, Section 1102B.

**EXISTING BUILDINGS.** [For DSA/AC] See "building, ex-

**EXIT.** [For DSA/AC] See Section 1005.1.

EXIT COURT. See Section 1006.3.5.1.

### SECTION 207 — F

FABRICATION AREA (fab area) is an area within a semiconductor fabrication facility and related research and development areas in which there are processes using hazardous production materials. Such areas are allowed to include ancillary rooms or areas such as dressing rooms and offices that are directly related to the fab area processes.

L C FACILITY (or FACILITIES). [For HCD 1/AC L C 11A, Section 1107A.6-F. [For DSA/AC] See Chall L C tion 1107A.6-F and Chapter 11B, Section 1102B. FACILITY (or FACILITIES). [For HCD 1|AC] See Chapter 11A, Section 1107A.6-F. [For DSA/AC] See Chapter 11A, Sec-

**FAMILY** is an individual or two or more persons related by blood or marriage or a group of not more than five persons (excluding servants) who need not be related by blood or marriage living together in a dwelling unit.

**FAMILY** [For HCD 1] is an individual or two or more persons related by blood or marriage, or otherwise, who live together in a dwelling unit.

FINAL INSPECTION PLACE. [For AGR] Any room, compartment or specially prepared open place at which final inspection of retained carcasses may be conducted in an establishment in which slaughtering is done.

FINISH RATING [For HCD 1 & HCD 2, SFM] is the time at which the combustible material behind the finish reaches an average temperature rise of 250°F (121°C) above ambient or an individual temperature rise of 325°F (163°C) above ambient as measured on the plane of the combustible material nearest the fire when tested in accordance with UBC Standard 7-1.

FIRE ASSEMBLY. See Section 713.2.

**FIRE CODE** is the *Uniform Fire Code* promulgated by the International Fire Code Institute, as adopted by this jurisdiction.

FIRE RESISTANCE or FIRE-RESISTIVE CONSTRUC-**TION** is construction to resist the spread of fire, details of which are specified in this code.

FIRE-RETARDANT-TREATED WOOD is any wood product impregnated with chemicals by a pressure process or other means during manufacture, and which, when tested in accordance with UBC Standard 8-1 for a period of 30 minutes, shall have a flame spread of not over 25 and show no evidence of progressive combustion. In addition, the flame front shall not progress more than  $10^{1}/_{2}$  feet (3200 mm) beyond the center line of the burner at any time during the test. Materials that may be exposed to the weather shall pass the accelerated weathering test and be identified as Exterior type, in accordance with UBC Standard 23-4. Where material is not directly exposed to rainfall but exposed to high humidity conditions, it shall be subjected to the hygroscopic test and identified as Interior Type A in accordance with UBC Standard 23-4.

All materials shall bear identification showing the fire performance rating thereof. Such identifications shall be issued by an approved agency having a service for inspection of materials at the factory.

[For HCD 1 & 2, SFM] Fire-retardant-treated wood shall not be construed as "noncombustible" within the meaning of UBC Section 215.

### **FLAMMABLE LIQUID.** See the Fire Code.

FLOOR AREA is the area included within the surrounding exterior walls of a building or portion thereof, exclusive of vent shafts and courts. The floor area of a building, or portion thereof, not provided with surrounding exterior walls shall be the usable area under the horizontal projection of the roof or floor above.

FM is Factory Mutual Engineering and Research, 1151 Boston-Providence Turnpike, Norwood, Massachusetts 02062.

FOAM PLASTIC INSULATION is a plastic that is intentionally expanded by the use of a foaming agent to produce a reduced-density plastic containing voids consisting of hollow spheres or interconnected cells distributed throughout the plastic for thermal insulating or acoustical purposes and that has a density less than 20 pounds per cubic foot (320 kg/m<sup>3</sup>).

**FOOTING** is that portion of the foundation of a structure that spreads and transmits loads directly to the soil or the piles.

**FRONT OF LOT** is the front boundary line of a lot bordering on the street and, in the case of a corner lot, may be either frontage.

FULL-TIME CARE [For SFM] shall mean the establishment and routine care of persons on an hourly, daily, weekly, monthly, yearly or permanent basis, whether for 24 hours per day or less, and where sleeping accommodations are provided.

### SECTION 208 — G

**GARAGE** is a building or portion thereof in which a motor vehicle containing flammable or combustible liquids or gas in its tank [for SFM] or an electric vehicle with a rechargeable storage battery, fuel cell, photovoltaic array or other source of electric current is stored, repaired, charged (electric vehicles only) or

**GARAGE**, **PRIVATE**, is a building or a portion of a building, not more than 1,000 square feet (93 m<sup>2</sup>) in area, in which only motor vehicles used by the tenants of the building or buildings on the premises are stored or kept. (See Section 312.)

**GARAGE**, **PUBLIC**, is any garage other than a private garage.

**GAS ROOM** is a separately ventilated, fully enclosed room in which only toxic and highly toxic compressed gases and associated equipment and supplies are stored or used.

GRAB BAR [For HCD 1 & HCD 2] See Chapter 11A, Section 1107A.7-G. [For DSA/AC] See Chapter 11A, Section 1107A.7-G and Chapter 11B, Section 1102B.

GRADE [For HCD 1 & HCD 2, DSA/AC] (Adjacent **Ground Elevation**) is the lowest point of elevation of the finished surface of the ground, paving or sidewalk within the area between the building and the property line or, when the property line is more than 5 feet (1524 mm) from the building, between the building and a line 5 feet (1524 mm) from the building. See Health and Safety Code Section 19955.3 (d).

GRADE (Lumber) is the classification of lumber in regard to strength and utility.

GROUND FLOOR. [For HCD 1/AC] See Chapter 11A, Section 1107A.7-G. [For DSA/AC] See Chapter 11A, Section 1107A.7-G.

**GUARDRAIL** is a system of building components located near the open sides of elevated walking surfaces for the purpose of

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minimizing the possibility of an accidental fall from the walking surface to the lower level.

GUARDRAIL [For HCD 1 & HCD 2, DSA|AC] is a vertical barrier erected along the open edges of a floor opening, wall opening, ramp, platform, runway or other elevated area to prevent persons from falling off the open edge.

**GUEST** is any person hiring or occupying a room for living or sleeping purposes.

**GUEST ROOM** is any room or rooms used or intended to be used by a guest for sleeping purposes. Every 100 square feet (9.3 m<sup>2</sup>) of superficial floor area in a dormitory shall be considered to be a guest room.

### SECTION 209 — H

HABITABLE SPACE (ROOM) is space in a structure for living, sleeping, eating or cooking. Bathrooms, toilet compartments, closets, halls, storage or utility space, and similar areas, are not considered habitable space.

**HANDLING** is the deliberate movement of material by any means to a point of storage or use.

HANDRAIL is a railing provided for grasping with the hand L C for support. See also "guardrail." [For HCD 1/AC] See Chapter L C 11A, Section 1107A.8-H. [For DSA/AC] See Chapter 11A, Section L C 1107A.8-H and Chapter 11B, Section 1102B.

HAZARDOUS PRODUCTION MATERIAL (HPM) is a solid, liquid or gas that has a degree of hazard rating in health, flammability or reactivity of 3 or 4 and that is used directly in research, laboratory or production processes that have, as their end product, materials that are not hazardous.

HAZARDOUS SUBSTANCE [For SFM] is a substance which, by reason of being explosive, flammable, toxic, poisonous, corrosive, oxidizing, irritant or otherwise harmful, is likely to cause injury.

**HEALTH CARE PROVIDER [For DSA/AC]** is a person or entity regulated by a state to provide professional services related to the physical or mental health of an individual and who makes such services available to the public.

**HEALTH FACILITIES** [For OSHPD 1, 2, 3 & 4] are those buildings specified within the statutory authority of the Office of Statewide Health Planning and Development. See Section 101.17.13.

HEALTH HAZARD is a classification of a chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed persons. The term "health hazard" includes chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes or mucous membranes.

**HEIGHT OF BUILDING** is the vertical distance above a reference datum measured to the highest point of the coping of a flat roof or to the deck line of a mansard roof or to the average height of the highest gable of a pitched or hipped roof. The reference datum shall be selected by either of the following, whichever yields a greater height of building:

1. The elevation of the highest adjoining sidewalk or ground surface within a 5-foot (1524 mm) horizontal distance of the exterior wall of the building when such sidewalk or ground surface is not more than 10 feet (3048 mm) above lowest grade.

2. An elevation 10 feet (3048 mm) higher than the lowest grade when the sidewalk or ground surface described in Item 1 is more than 10 feet (3048 mm) above lowest grade.

The height of a stepped or terraced building is the maximum height of any segment of the building.

**HELIPORT** is an area of land or water or a structural surface that is used, or intended for use, for the landing and take-off of helicopters, and any appurtenant areas that are used, or intended for use, for heliport buildings and other heliport facilities.

**HELISTOP** is the same as a heliport, except that no refueling, maintenance, repairs or storage of helicopters is permitted.

**HIGHLY TOXIC MATERIAL** is a material that produces a lethal dose or a lethal concentration that falls within any of the following categories:

- 1. A chemical that has a median lethal dose (LD<sub>50</sub>) of 50 milligrams or less per kilogram of body weight when administered orally to albino rats weighing between 200 and 300 grams each.
- 2. A chemical that has a median lethal dose ( $LD_{50}$ ) of 200 milligrams or less per kilogram of body weight when administered by continuous contact for 24 hours (or less if death occurs within 24 hours) with the bare skin of albino rabbits weighing between 2 and 3 kilograms each.
- 3. A chemical that has a median lethal concentration ( $LC_{50}$ ) in air of 200 parts per million by volume or less of gas or vapor, or 2 milligrams per liter or less of mist, fume or dust, when administered by continuous inhalation for one hour (or less if death occurs within one hour) to albino rats weighing between 200 and 300 grams each.

Mixtures of these materials with ordinary materials, such as water, may not warrant a classification of highly toxic. While this system is basically simple in application, any hazard evaluation that is required for the precise categorization of this type of material shall be performed by experienced, technically competent persons.

HIGH-RISE BUILDING. [For SFM] See Chapter 4.

HISTORICAL BUILDING. [For DSA/AC] See "qualified historical building or property, Chapter 34, Division II, Section 8-218-Q."

HORIZONTAL EXIT. See Section 1005.3.5.

HOTEL OR MOTEL [For HCD 1, HCD 2, DSA/AC] is any building containing six or more guest rooms intended or designed to be used, or which are used, rented or hired out to be occupied, or which are occupied for sleeping purposes by guests.

**HOT-WATER-HEATING BOILER** is a boiler having a volume exceeding 120 gallons (454.2 L), or a heat input exceeding 200,000 Btu/h (149 540 kW), or an operating temperature exceeding 210°F (99°C) that provides hot water to be used externally to itself.

**HPM ROOM** is a room used in conjunction with or serving a Group H, Division 6 Occupancy that hazardous production materials (HPM) are stored or used and that is classified as a Group H, Division 2, 3 or 7 Occupancy.

### SECTION 210 — I

IMPACT INSULATION CLASS (IIC) [For HCD 1] is a single-number rating for ceiling/floor construction that represents the ability of the construction to isolate impact noise, where measurement procedure is based on ASTM E 492.

INDEPENDENT ENTITY [For DSA/AC] is a not-for-profit product safety testing and certification organization, dedicated to testing for public safety. An independent entity would operate for the testing, certification and quality assessment of products, systems and services.

INFANT, [For SFM] for the purpose of these regulations, shall mean any child who because of age only, is unable to walk and requires the aid of another person to evacuate the building. In no case shall the term "infant" mean a child beyond two years of

INTERNATIONAL SYMBOL OF ACCESSIBILITY. [For HCD I/AC] See Chapter 11A, Section 1107A.9-I. [For DSA/AC] See Chapter 11A, Section 1107A.9-I and Chapter 11B, Section 1102B

**IRRITANT** is a chemical that is not corrosive but that causes a reversible inflammatory effect on living tissue by chemical action at the site of contact. A chemical is a skin irritant if, when tested on the intact skin of albino rabbits by the methods of 16 C.F.R. 1500.41 for four hours' exposure or by other appropriate techniques, it results in an empirical score of 5 or more. A chemical is an eye irritant if so determined under the procedure listed in 16 C.F.R. 1500.42 or other appropriate techniques.

### SECTION 211 — J

**JURISDICTION**, as used in this code, is any political subdivision that adopts this code for administrative regulations within its sphere of authority.

### SECTION 212 — K

### SECTION 213 — L

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LEVEL AREA. [For HCD 1/AC] See Chapter 11A, Section 1107A.12-L. [For DSA/AC] See Chapter 11A, Section 1107A.12-L and Chapter 11B, Section 1102B.

LIFT, SPECIAL ACCESS. [For HCD 1/AC] See Chapter 11A, Section 1107A.12-L. [For DSA/AC] See Chapter 11A, Section 1107A.12-L and Chapter 11B, Section 1102B.

LIGHT-FRAME CONSTRUCTION [For HCD & HCD 2] is a type of construction whose vertical and horizontal structural elements are primarily framed by a system of repetitive wood or light gauge steel framing members, and which does not use structural concrete as floor or roof diaphragm.

**LINTEL** is a structural member placed over an opening or a recess in a wall and supporting construction above.

**LIQUID** is any material that has a fluidity greater than that of 300 penetration asphalt when tested in accordance with the *Uniform Fire Code* standards. When not otherwise identified, the term "liquid" is both flammable and combustible liquids.

**LIQUID STORAGE ROOM** is a room classified as a Group H, Division 3 Occupancy used only for the storage of flammable or combustible liquids in a closed condition. The quantities of flammable or combustible liquids in storage shall not exceed the limits set forth in the Fire Code.

**LIQUID STORAGE WAREHOUSE** is a Group H, Division 3 Occupancy used only for the storage of flammable or combustible liquids in an unopened condition. The quantities of flammable or combustible liquids stored are not limited.

**LISTED** and **LISTING** are terms referring to equipment or materials included in a list published by an approved testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of current

productions of listed equipment or materials. The published list shall state that the material or equipment complies with approved nationally recognized codes, standards or tests and has been tested or evaluated and found suitable for use in a specified manner.

[For SFM] These terms shall also mean equipment or materials accepted by the state fire marshal as conforming to the provisions of the state fire marshal's regulations and which are included in a list published by the state fire marshal.

LISTED. [For HCD 1 & HCD 2] Subject to other sections of law, the applicable subsection (h) of Health and Safety Code Section 17920 is repeated here for clarification purposes.

Section 17920 (h). Listed means all products that appear in a list published by an approved testing or listing agency.

LISTING AGENCY. [For HCD 1 & HCD 2] Subject to other sections of law, the applicable section of the Health and Safety Code is repeated here for clarity and reads as follows:

Section 17920 (i). Listing agency means an agency approved by the department that is in the business of listing and labeling products, materials, equipment and installations tested by an approved testing agency, and that maintains a periodic inspection program on current production of listed products, equipment, and installations, and that, at least annually, makes available a published report of these listings.

LIVING ACCOMMODATIONS [For HCD 1, DSA/AC] means any building or portion thereof having three or more apartments as defined in this code or any publicly funded building or portion thereof.

LOADS. See Chapter 16.

LOBBY [For HCD1 & HCD2, SFM] is an area not defined as a waiting room at the entrance of a building through which persons must pass.

**LODGING HOUSE** is any building or portion thereof containing not more than five guest rooms where rent is paid in money, goods, labor or otherwise.

**LOW-PRESSURE HOT-WATER-HEATING BOILER** is a boiler furnishing hot water at pressures not exceeding 160 psi (1103.2 kPa) and at temperatures not exceeding 250°F (121°C).

**LOW-PRESSURE STEAM-HEATING BOILER** is a boiler furnishing steam at pressures not exceeding 15 psi (103.4 kPa).

### SECTION 214 — M

MARKED CROSSING. [For HCD 1/AC] See Chapter 11A, Section 1107A.13-M. [For DSA/AC] See Chapter 11A, Section 1107A.13-M and Chapter 11B, Section 1102B.

**MARQUEE** is a permanent roofed structure attached to and supported by the building and projecting over public property. Marquees are regulated in Chapter 32.

MASONRY is that form of construction composed of stone, brick, concrete, gypsum, hollow-clay tile, concrete block or tile, glass block or other similar building units or materials or combination of these materials laid up unit by unit and set in mortar.

**MASONRY, SOLID,** is masonry of solid units built without hollow spaces.

**MECHANICAL CODE** is the *Uniform Mechanical Code* promulgated by the International Conference of Building Officials, as adopted by this jurisdiction.

MENTALLY RETARDED PERSONS, PROFOUNDLY OR SEVERELY, [For SFM] shall mean any retarded person who is unable to evacuate a building unassisted during emergency conditions.



**NOTE:** The determination as to such incapacity shall be made by the director of the State Department of Public Health or his designated representative pursuant to Health and Safety Code Section 13131.3.

MESS HALL [For HCD 1] is a room or portion of a room in an employee housing facility, other than a kitchen or dining area in a dwelling unit, used or intended for use for the serving of food.

**MESS HALL KITCHEN [For HCD 1]** is a room or portion of a room used or intended for use as a kitchen in conjunction with a mess hall.

**MEZZANINE** or **MEZZANINE FLOOR** is an intermediate floor placed within a room.

MODERNIZATION PROJECT is any construction effort that has an estimated total cost in excess of \$200,000.00 that is intended to modify a permanent school building or structure and or the addition of a new school building or structure used to serve or house students from kindergarten through twelfth grade (K-12).

Modernization efforts shall apply strictly to a public school that was established prior to July 1, 2002, and is funded pursuant to the Education Code, Section 17074.56, and Education Code commencing with Section 17070.10.

Modernization projects that are to be completed in more than one phase may defer the installation of the automatic fire detection and alarm systems until the final phase of the modernization project.

Solely for the purposes of Education Code Section 17074.20, routine maintenance and repair work shall not be considered a modernization project.

MOTEL [For HCD 1, DSA/AC] shall mean the same as hotel as defined in this code.

MOTOR VEHICLE FUEL-DISPENSING STATION is that portion of a building where flammable or combustible liquids or gases used as motor fuels are stored and dispensed from fixed equipment into the fuel tanks of motor vehicles.

MULTISTORY DWELLING UNIT. [For HCD 1/AC] See Chapter 11A, Section 1107A.13-M. [For DSA/AC] See Chapter 11A, Section 1107A.13-M.

MULTIPLE-ACCOMMODATION TOILET FACILITY [For HCD 1 & HCD 2, DSA/AC] is a room that has more than one sanitary fixture, is intended for the use of more than one person at a time, and which usually is provided with privacy compartments or screens shielding some fixtures from view. A bathroom serving a hotel guest room and a privacy toilet in small offices, stores and similar locations are not included in this category.

### SECTION 215 — N

**NEW PUBLIC SCHOOL CAMPUS** is an educational institution established on or after July 1, 2002 that houses and or serves students from kindergarten through twelfth grade (K-12) and is funded pursuant to the Education Code, commencing with Section 17070.10.

NEWLY CONSTRUCTED. [For HCD 1 |AC] See Chapter 11A, Section 1107A.14-N. [For DSA|AC] See Chapter 11A, Section 1107A.14-N and Chapter 11B, Section 1102B.

NONAMBULATORY PERSONS [For SFM] are persons unable to leave a building unassisted under emergency conditions. It includes, but is not limited to, persons who depend on mechanical aids such as crutches, walkers and wheelchairs and any person who is unable to physically and mentally respond to a sensory signal approved by the state fire marshal or an oral instruction relating to fire danger.

The determination of ambulatory or nonambulatory status of persons with developmental disabilities shall be made by the director of Social Services or his or her designated representative, in consultation with the director of Developmental Services or his or her designated representative. The determination of ambulatory or nonambulatory status of all other disabled persons placed after January 1, 1984, who are not developmentally disabled shall be made by the director of Social Services or his or her designated representative.

**NONCOMBUSTIBLE,** as applied to building construction material, means a material that, in the form in which it is used, is either one of the following:

- 1. Material of which no part will ignite and burn when subjected to fire. Any material conforming to UBC Standard 2-1 shall be considered noncombustible within the meaning of this section.
- 2. Material having a structural base of noncombustible material as defined in Item 1, with a surfacing material not over  $\frac{1}{8}$  inch (3.2 mm) thick which has a flame-spread rating of 50 or less.

"Noncombustible" does not apply to surface finish materials. Material required to be noncombustible for reduced clearances to flues, heating appliances or other sources of high temperature shall refer to material conforming to Item 1. No material shall be classed as noncombustible, which is subject to increase in combustibility or flame-spread rating, beyond the limits herein established, through the effects of age, moisture or other atmospheric condition.

Flame-spread rating as used herein refers to rating obtained according to tests conducted as specified in UBC Standard 8-1.

NORMAL [For HCD 1 & HCD 2] shall mean conforming to a pattern or standard regarded as usual or typical.

NOSE, NOSING. [For HCD 1/AC] See Chapter 11A, Section 1107A.14-N. [For DSA/AC] See Chapter 11A, Section 1107A.14-N and Chapter 11B, Section 1102B.

### SECTION 216 — O

**OCCUPANCY** is the purpose for that a building, or part thereof, is used or intended to be used.

OCCUPIABLE [For HCD 2, DSA/AC] is a room or enclosed space designed for human occupancy in which individuals congregate for amusement, educational or similar purposes, or in which occupants are engaged at labor, and which is equipped with means of egress, light and ventilation.

OPEN RISER. [For HCD 1/AC] See Chapter 11A, Section 1107A.15-O. [For DSA/AC] See Chapter 11A, Section 1107A.15-O and Chapter 11B, Section 1102B.

**OPERABLE PART** [For DSA/AC] is a part of a piece of equipment or appliance used to insert or withdraw objects, or to activate, deactivate or adjust the equipment or appliance (for example, coin slot, pushbutton, handle).

**ORIEL WINDOW** is a window that projects from the main line of an enclosing wall of a building and is carried on brackets or corbels.

**OWNER** is any person, agent, firm or corporation having a legal or equitable interest in the property.

### SECTION 217 — P

PANIC HARDWARE. See Section 1002.

PASSAGE DOOR. [For HCD 1/AC] See Chapter 11A, Section 1107A.16-P. [For DSA/AC] See Chapter 11A, Section 1107A.16-P and Chapter 11B, Section 1102B.

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PASSIVE SOLAR ENERGY COLLECTOR. [HCD 1] A passive solar energy collector uses architectural components, rather than mechanical components, to provide heating or cooling for a building interior.

PATH OF TRAVEL [For DSA/AC] is a passage that may consist of walks and sidewalks, curb ramps and pedestrian ramps, lobbies and corridors, elevators, other improved areas, or a necessary combination thereof, that provides free and unobstructed access to and egress from a particular area or location for pedestrians and/or wheelchair users.

**PEDESTRIAN.** [For HCD 1/AC] See Chapter 11A, Section 1107A.16-P. [For DSA/AC] See Chapter 11A, Section 1107A.16-P and Chapter 11B, Section 1102B.

**PEDESTRIAN GRADE SEPARATION** [For DSA/AC] is a structure erected over or under an obstacle such as a freeway, roadway, street, railroad, stream, etc., and intended primarily for pedestrian use.

**PEDESTRIAN RAMP.** [For HCD 1/AC] See Chapter 11A, Section 1107A.16-P. [For DSA/AC] See Chapter 11A, Section 1107A.16-P and Chapter 11B, Section 1102B.

**PEDESTRIAN WALKWAY** is a walkway used exclusively as a pedestrian trafficway.

PEDESTRIAN WAY. [For HCD 1/AC] See Chapter 11A, Section 1107A.16-P. [For DSA/AC] See Chapter 11A, Section 1107A.16-P and Chapter 11B, Section 1102B.

**PERMANENT**[For DSA/AC] shall mean facilities which are intended to be used for periods longer than those designated in this code under the definition of "temporary."

**PERMIT** is an official document or certificate issued by the building official authorizing performance of a specified activity.

**PERSON** is a natural person, heirs, executors, administrators or assigns, and includes a firm, partnership or corporation, its or their successors or assigns, or the agent of any of the aforesaid.

C PERSONS WITH DISABILITIES. [For HCD 1/AC] See A Chapter 11A, Section 1107A.16-P. [For DSA/AC] See Chapter A 11A, Section 1107A.16-P.

**PHOTOLUMINESCENT** is the property of emitting light as the result of absorption of visible or invisible light, which continues for a length of time after excitation.

PLASTIC MATERIALS, APPROVED, other than foam plastics regulated under Sections 601.5.5 and 2602, are those plastic materials having a self-ignition temperature of 650°F (343°C) or greater as determined in accordance with UBC Standard 26-6, and a smoke-density rating not greater than 450 when tested in accordance with UBC Standard 8-1, in the way intended for use, or a smoke-density rating not greater than 75 when tested in accordance with UBC Standard 26-5 in the thickness intended for use. Approved plastics shall be classified as either CC1 or CC2 in accordance with UBC Standard 26-7. See also "foam plastic insulation."

PLATFORM. See Section 405.1.2.

**PLATFORM, UNENCLOSED, [For DSA/AC]** is a horizontal, generally level and raised surface for speakers, performances, displays, etc., as distinguished from platforms which are enclosed.

**PLUMBING CODE** is the *Plumbing Code*, as adopted by this jurisdiction.

PORTABLE BUILDING is a classroom building or structure of modular design and construction that houses and or serves students from kindergarten through twelfth grade (K-12) and is funded pursuant to the Education Code, commencing with Section 17070.10 and meets all of the following criteria:

- 1. The portable building or structure is designed and constructed to be relocatable and transportable over public streets.
- 2. The portable building or structure is designed and constructed for relocation without detaching the roof or the floor from the building or structure.
- 3. The portable building or structure is sited upon a temporary foundation in a manner that is designed to permit easy removal.
- 4. The portable building or structure has a floor area of 2,000 square feet or less when measured from the extent of the exterior walls.
- 5. The portable building shall be removed within three years of installation, or the school administration may request a three year extension pursuant to Education Code Section 17074.54 (a) and (b).

**POWDER ROOM.** [For HCD 1/AC] See Chapter 11A, Section 1107A.16-P. [For DSA/AC] See Chapter 11A, Section 1107A.16-P.

**POWER-ASSISTED DOOR** [For HCD 1 & HCD 2, DSA/AC] is a door used for human passage with a mechanism that helps to open the door, or relieves the opening resistance of a door, upon the activation of a switch or a continued force applied to the door itself.

**PREPARE [For AGR]** means to slaughter, cut up, bone, recut, pack, repack, label, or relabel fresh or frozen pet food or horsemeat intended for human use subject to the control of the California Department of Agriculture.

**PRIMARY ENTRY.** [For HCD 1/AC] See Chapter 11A, Section 1107A.16-P.

PRIMARY ENTRY LEVEL. [For HCD 1/AC] See Chapter 11A, Section 1107A.16-P.

**PROCESSING FOR USE AS PET FOOD [For AGR]** means chilling, freezing, packing, repacking, or otherwise handling any meat, meat food product or meat byproduct, or horsemeat, horsemeat food product, or horsemeat byproduct destined for use as pet food.

**PROTECTIVE MEMBRANE** is a surface material that forms the required outer layer or layers of a fire-resistive assembly containing concealed spaces.

**PUBLIC ACCOMMODATION [For DSA**|AC] [For HCD 1 & HCD 2] includes, but is not limited to, any building or facility or other specific public use facilities not listed in Items 1 through 12 if they fall into one or more of the following categories:

- 1. Places of public lodging.
- 2. Establishments serving food or drink open to public use.
- 3. Places of exhibition or entertainment open to public use.
- 4. Places of public gathering.
- 5. Sales or rental establishments open to public use.
- 6. Service establishments open to public use.
- 7. Stations used for public transportation.
- 8. Places of public display or collection.

- 10. Places of public education.
- 11. Social service center establishments open to public use.
- 12. Places of exercise or recreation open to public use.

Examples of public accommodations for purposes of this code shall include, but not be limited to, the following private entities:

- 1. An inn, hotel, motel or other place of public lodging, except for a lodging house located within a building that contains not more than five rooms for rent or hire and that is actually occupied by the proprietor of such establishment as the residence of such proprietor.
- 2. A restaurant, bar, or other establishment serving food or drink.
- 3. A motion picture house, theater, concert hall, stadium or other place of exhibition or entertainment.
- 4. An auditorium, convention center, lecture hall, or other place of public gathering.
- 5. A bakery, grocery store, clothing store, hardware store, shopping center, or other sales or retail establishment.
- 6. A laundromat, dry cleaner, bank, barber shop, beauty shop, travel service, shoe repair service, funeral parlor, gas station, office of an accountant or lawyer, pharmacy, insurance office, professional office of a health care provider, hospital or other service establishment.
- 7. A terminal, depot, or other station used for specified public transportation.
- 8. A museum, library, gallery, or other place of public display or collection.
  - 9. A park, zoo, amusement park, or other place of recreation.
- 10. A nursery, elementary, secondary, undergraduate, or postgraduate private school, or other place of education.
- 11. A day-care center, senior citizen center, homeless shelter, food bank, adoption agency or other social service center establishment.
- 12. A gymnasium, health spa, bowling alley, golf course, or other place of exercise.
  - 13. A church.
  - 14. An office building.
  - 15. A public curb or sidewalk.

PUBLICLY FUNDED. [For HCD 1 & HCD 2, DSA|AC] For the purpose of housing, all buildings, structures, sidewalks, curbs and related facilities constructed in the state and used or intended to be used as a public use area, as defined in Section 1107A.16-P, shall comply with the accessibility standards of Chapter 11B of this code when state, county or municipal funds, or funds of any political subdivision of the state are used.

PUBLIC USE AREA. [For HCD 1/AC] See Chapter 11A, Section 11 of the chapter 11A, Section 11 of the chapter 11B, Section 1107A. 16-P and Chapter 11B, Section 1102B.

PUBLIC WAY. See Section 1002.

### SECTION 218 — Q

QUALIFIED HISTORICAL BUILDING (OR STRUCTURE). [For DSA/AC] See Chapter 34, Divison II, Section 8-218-O.

### SECTION 219 — R

RAIL TRANSIT BOARDING PLATFORM [For DSA/AC] is a horizontal, generally level surface, whether raised above, recessed below, or level with a transit rail, from which persons embark/disembark a fixed rail vehicle.

RAMP. [For HCD 1/AC] See Chapter 11A, Section 1107A.18-R. [For DSA/AC] See Chapter 11A, Section 1107A.18-R.

**REASONABLE PORTION** [For HCD 2, DSA/AC] shall mean that segment of a building, facility, area, space or condition which would normally be necessary if the activity therein is to be accessible by persons with disabilities.

**RECOMMEND [For HCD 1 & HCD 2, DSA/AC]** does not require mandatory acceptance, but identifies a suggested action that shall be considered for the purpose of providing a greater degree of accessibility to persons with disabilities.

**REMODELING.** [For HCD 1 & HCD 2, DSA/AC, SFM] See "alter or alteration."

**REPAIR** is the reconstruction or renewal of any part of an existing building for the purpose of its maintenance.

RESIDENTIAL CARE FACILITY FOR THE CHRONI-CALLY ILL (RCF/CI), [For SFM] as termed, means a housing arrangement with a maximum capacity of 25 residents that provides a range of services to residents who have chronic, lifethreatening illnesses.

RESIDENTIAL CARE FACILITY FOR THE ELDERLY (RCFE), [For SFM] as defined in Health and Safety Code Section 1569.2, shall mean a facility with a housing arrangement chosen voluntarily by persons 60 years of age or over, or their authorized representative, where varying levels and intensities of care and supervision, protective supervision or personal care are provided, based on their varying needs, as determined in order to be admitted and to remain in the facility. Persons under 60 years of age with compatible needs, as determined by the Department of Social Services in regulations, may be allowed to be admitted or retained in a residential-care facility for the elderly.

RESIDENTIAL FACILITY (RF), [For SFM] as defined in Section 1502 of the Health and Safety Code, shall mean any family home, group care facility, or similar facility determined by the director of Social Services, for 24-hour nonmedical care of persons in need of personal services, supervision, or assistance essential for sustaining the activities of daily living or for the protection of the individual. Such facilities include small family homes and social rehabilitation facilities.

RESTRAINT [For SFM] shall mean the physical retention of a person within a room, cell or cell block by any means, or within the exterior walls of a building by means of locked doors inoperable by the person restrained. Restraint shall also mean the physical binding, strapping or similar restriction of any person in a chair, walker, bed or other contrivance for the purpose of deliberately restricting the free movement of ambulatory persons.

Restraint shall not be construed to include nonambulatory persons nor shall it include the use of bandage material, strip sheeting or other fabrics or materials (soft ties) used to restrain persons in hospital-type beds or wheelchairs to prevent injury, provided an approved method of quick release is maintained. Facilities employing the use of soft ties, however, shall be classified as a building used to house nonambulatory persons.

RISER. [For HCD 1/AC] See Chapter 11A, Section 1107A.18-R and Chapter 11B, Section 1102B. [For DSA/AC] See Chapter 11A, Section 1107A.18-R and Chapter 11B, Section 1102B.

RUNNING SLOPE [For DSA/AC] is the slope that is parallel to the direction of travel.

### SECTION 220 — S

L C SANITARY FACILITY [For HCD 1 & HCD 2, DSA/AC] is L C any single water closet, urinal, lavatory, bathtub or shower, or a L C combination thereof, together with the room or space in which L C they are housed.

**SELF-LUMINOUS** means powered continuously by a self-contained power source other than a battery or batteries, such as radioactive tritium gas. A self-luminous sign is independent of external power supplies or other energy for its operation.

**SENSITIZER** is a chemical that causes a substantial proportion of exposed people or animals to develop an allergic reaction in normal tissue after repeated exposure to the chemical.

**SERVICE CORRIDOR** is a fully enclosed passage used for transporting hazardous production materials and for purposes other than required exiting.

**SHAFT** is an interior space, enclosed by walls or construction, extending through one or more stories or basements that connects openings in successive floors, or floors and roof, to accommodate elevators, dumbwaiters, mechanical equipment or similar devices or to transmit light or ventilation air.

**SHAFT ENCLOSURE** is the walls or construction forming the boundaries of a shaft.

SHALL, as used in this code, is mandatory.

SHOPPING CENTER [For HCD 2, DSA/AC] is one or more sales establishments or stores.

SHOULD. [For HCD 1 & HCD 2, DSA/AC] See "Recommend."

**SIDEWALK** [For DSA/AC] is a surfaced pedestrian way contiguous to a street used by the public. See definition for "walk."

**SIGNAGE [For DSA/AC]** is displayed verbal, symbolic, tactile, and/or pictorial information.

SINGLE-ACCOMMODATION SANITARY FACILITY [For HCD 1 & HCD 2, DSA|AC] is a room that has not more than one of each type of sanitary fixture, is intended for use by only one person at a time, has no partition around the toilet, and has a door that can be locked on the inside by the room occupant.

SITE [For HCD 1 & HCD 2, DSA/AC] is a parcel of land bounded by a property line or a designated portion of a public right of way.

SITE DEVELOPMENT [For HCD 1 & HCD 2, DSA/AC] is "on-site" and "off-site" work, including, but not limited to, walks, sidewalks, ramps, curbs, curb ramps, parking facilities, stairs, planting areas, pools, promenades, exterior gathering or assembly areas and raised or depressed paved areas.

SLEEPING ACCOMMODATIONS. [For HCD 1/AC] See Chapter 11A, Section 1107A.19-S. [For DSA/AC] See Chapter 11A, Section 1107A.19-S and Chapter 11B, Section 1102B.

SLOPE. [For HCD 1/AC] See Chapter 11A, Section 1107A.19-S. [For DSA/AC] See Chapter 11A, Section 1107A.19-S.

**SMOKE DETECTOR** *[For SFM]* is a state fire marshal-approved and listed device that senses visible or invisible particles of combustion.

SOUND TRANSMISSION CLASS (STC) [For HCD 1] is a single-figure rating for floor/ceiling and interior wall partition

construction that represents the ability of the construction to isolate airborne noise, where measurement procedure is based on ASTM E 90-70 or ASTM E 366-71.

SPACE [For HCD 2, DSA|AC] is a definable area, e.g., room, toilet room, hall, assembly area, entrance, storage room, alcove, courtyard, or lobby.

SPECIAL ACCESS LIFT. [For HCD 1/AC] See Chapter 11A, Section 1107A.19-S. [For DSA/AC] See Chapter 11A, Section 1107A.19-S and Chapter 11B, Section 1102B.

**SQUARE FEET [For HCD 1 & HCD 2]** is abbreviated as ft. <sup>2</sup>. **STAGE.** See Chapter 4.

STAIRWAY. [For HCD 1 & HCD 2, DSA/AC, SFM] Two or more risers shall constitute a stairway.

STATE-OWNED/LEASED BUILDING [For SFM] is a building or portion of a building that is owned, leased or rented by the state. State-leased buildings shall include all required exits to a public way serving such leased area or space. Portions of state-leased buildings that are not leased or rented by the state shall not be included within the scope of this section unless such portions present an exposure hazard to the state-leased area or space.

STORY is that portion of a building included between the upper surface of any floor and the upper surface of the floor next above, except that the topmost story shall be that portion of a building included between the upper surface of the topmost floor and the ceiling or roof above. If the finished floor level directly above a usable or unused under-floor space is more than 6 feet (1829 mm) above grade, as defined herein, for more than 50 percent of the total perimeter or is more than 12 feet (3658 mm) above grade, as defined herein, at any point, such usable or unused under-floor space shall be considered as a story.

[For DSA/AC] For the purposes of accessibility, Chapter 11B, "Story" means that portion of a building included between the upper surface of any floor and the upper surface of the floor next above, except that the topmost story shall be that portion of a building included between the upper surface of the topmost floor and the ceiling or roof above. If the finished floor level directly above a basement or unused under-floor space is more than six feet above grade for more than 50 percent of the total perimeter or is more than 12 feet above grade at any point, the basement or unused under-floor space shall be considered as a story.

STORY, FIRST, is the lowest story in a building that qualifies as a story, as defined herein, except that a floor level in a building having only one floor level shall be classified as a first story, provided such floor level is not more than 4 feet (1219 mm) below grade, as defined herein, for more than 50 percent of the total perimeter, or not more than 8 feet (2438 mm) below grade, as defined herein, at any point.

[For DSA/AC] For the purposes of accessibility, Chapter 11B, "First story" means the lowest story in a building which qualifies as a story and which provides the basic services or functions for which the building is used. A floor level in a building having only one floor level shall be classified as a first story, if the floor level is not more than four feet below grade, for more than 50 percent of the total perimeter, or more than eight feet below grade at any point.

**STREET** is any thoroughfare or public way not less than 16 feet (4877 mm) in width that has been dedicated or deeded to the public for public use.

STRUCTURAL OBSERVATION means the visual observation of the structural system, for general conformance to the approved plans and specifications, at significant construction stages and at completion of the structural system. Structural observation does not include or waive the responsibility for the inspections required by Section 108, 1701 or other sections of this code.

**STRUCTURE** is that which is built or constructed, an edifice or building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner.

**SURGICAL AREA** is the preoperating, operating, recovery and similar rooms within an outpatient health-care center.

### SECTION 221 — T

**TACTILE** [For HCD 2, DSA/AC] describes an object that can be perceived using the sense of touch.

TECHNICALLY INFEASIBLE [For HCD 2, DSA/AC] means, with respect to an alteration of a building or a facility, that it has little likelihood of being accomplished because existing structural conditions would require removing or altering a load-bearing member which is an essential part of the structural frame; or because other existing physical or site constraints prohibit modification or addition of elements, spaces, or features which are in full and strict compliance with the minimum requirements for new construction and which are necessary to provide accessibility.

**TEMPORARY** [For DSA/AC] shall mean buildings and facilities intended for use at one location for not more than one year and seats intended for use at one location for not more than 90 days.

TERMINALLY ILL, [For SFM] as termed for an individual, means the individual has a life expectancy of six months or less as stated in writing by his or her attending physician and surgeon.

**TESTING AGENCY.** [For HCD 1 & HCD 2] Subject to other sections of law, the applicable subsection of the Health and Safety Code is repeated here for clarity and reads as follows:

Section 17920 (m). Testing agency means an agency approved by the department as qualified and equipped for testing of products, materials, equipment and installations in accordance with nationally recognized standards.

TEXT TELEPHONE [For DSA/AC] is machinery or equipment that employs interactive graphic (i.e., typed) communications through the transmission of coded signals across the standard telephone network. Text telephones can include, for example, devices known as TTYs (telecommunication display devices) or computers.

THROUGH-PENETRATION FIRE STOP [For HCD 1 & HCD 2] is a material, device or construction installed to resist, for a prescribed time period, the passage of flame, heat and hot gases through openings which penetrate the entire fire-resistive assembly in order to accommodate cables, cable trays, conduit, tubing, pipes or similar items.

**TOEBOARD.** [For HCD 1/AC] See Chapter 11A, Section 1107A.20-T. [For DSA/AC] See Chapter 11A, Section 1107A.20-T.

TOWNHOUSE. [For HCD 1/AC] See Chapter 11A, Section 1107A.20-T. [For DSA/AC] See Chapter 11A, Section 1107A.20-T.

TRANSIENT LODGING [For DSA/AC] is a building, facility, or portion thereof, excluding inpatient medical care facilities, that contains one or more dwelling units or sleeping accommodations. Transient lodging may include, but is not limited to, resorts, group homes, hotels, motels and dormitories.

TRAVEL DISTANCE. See Section 1004.2.5.

TREAD. [For HCD 1/AC] See Chapter 11A, Section 1107A.20-T. [For DSA/AC] See Chapter 11A, Section 1107A.20-T and Chapter 11B, Section 1102B.

TREAD DEPTH. [For HCD 1/AC] See Chapter 11A, Section 1107A.20-T. [For DSA/AC] See Chapter 11A, Section 1107A.20-T and Chapter 11B, Section 1102B.

TREAD RUN. [For HCD 1/AC] See Chapter 11A, Section 1107A.20-T. [For DSA/AC] See Chapter 11A, Section 1107A.20-T and Chapter 11B, Section 1102B.

### SECTION 222 — U

UBC [For HCD 1 & HCD 2, DSA/AC, SFM, DSA/SS] shall mean the most recently adopted edition of the Uniform Building Code as published by the International Conference of Building Officials.

References to other model code sections which are found in any adopted sections of the model code or Title 24, C.C.R., must be compared to the appropriate matrix adoption table to determine if the enforcing agency has adopted the model code section or a modified Title 24, C.C.R., section.

**UBC STANDARDS** *[For HCD 1 & HCD 2, DSA/AC, SFM]* are those standards published in Volume 3 of the *Uniform Building Code* promulgated by the International Conference of Building Officials, as adopted by this jurisdiction. (See Chapter 35.)

UL is the Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, Illinois 60062.

UNREASONABLE HARDSHIP [For DSA|AC] exists when the enforcing agency finds that compliance with the building standard would make the specific work of the project affected by the building standard unfeasible, based on an overall evaluation of the following factors:

- 1. The cost of providing access.
- 2. The cost of all construction contemplated.
- 3. The impact of proposed improvements on financial feasibility of the project.
  - 4. The nature of the accessibility which would be gained or lost.
- 5. The nature of the use of the facility under construction and its availability to persons with disabilities. The details of any finding of unreasonable hardship shall be recorded and entered in the files of the enforcing agency.

**USE, with reference to flammable or combustible liquids,** is the placing in action or service of flammable or combustible liquids whereby flammable vapors may be liberated to the atmosphere.

USE, with reference to hazardous materials other than flammable or combustible liquids, is the placing in action or making available for service by opening or connecting any container utilized for confinement of material whether a solid, liquid or gas.

**USE, CLOSED SYSTEM,** is use of a solid or liquid hazardous material in a closed vessel or system that remains closed during normal operations where vapors emitted by the product are not liberated outside of the vessel or system and the product is not exposed to the atmosphere during normal operations, and all uses of compressed gases. Examples of closed systems for solids and liquids include product conveyed through a piping system into a closed vessel, system or piece of equipment, and reaction process operations.

**USE, OPEN SYSTEM,** is use of a solid or liquid hazardous material in a vessel or system that is continuously open to the at-

mosphere during normal operations and where vapors are liberated, or the product is exposed to the atmosphere during normal operations. Examples of open systems for solids and liquids include dispensing from or into open beakers or containers, dip tank and plating tank operations.

### SECTION 223 — V

**VALUE** or **VALUATION** of a building shall be the estimated cost to replace the building and structure in kind, based on current replacement costs, as determined in Section 107.2.

VEHICULAR OR PEDESTRIAN ARRIVAL POINTS. [For HCD1/AC] See Chapter 11A, Section 1107A.22-V. [For DSA/AC] See Chapter 11A, Section 1107A.22-V.

VENEER. See Section 1403.2.

### SECTION 224 — W

**WAITING ROOM [For SFM]** is a room or area normally provided with seating and used for persons waiting.

L C WALK. [For HCD 1/AC] See Chapter 11A, Section L C 1107A.23-W. [For DSA/AC] See Chapter 11A, Section L C 1107A.23-W and Chapter 11B, Section 1102B.

WALLS shall be defined as follows:

**Bearing Wall** is any wall meeting either of the following classifications:

- 1. Any metal or wood stud wall that supports more than 100 pounds per lineal foot (1.459 kN per lineal meter) of superimposed load.
- 2. Any masonry or concrete wall that supports more than 200 pounds per lineal foot (2.918 kN per lineal meter) superimposed load, or any such wall supporting its own weight for more than one story.

**Exterior Wall** is any wall or element of a wall, or any member or group of members, that defines the exterior boundaries or courts of a building and that has a slope of 60 degrees or greater with the horizontal plane.

Faced Wall is a wall in which the masonry facing and backing are so bonded as to exert a common action under load.

**Nonbearing Wall** is any wall that is not a bearing wall.

Parapet Wall is that part of any wall entirely above the roof line.

**Retaining Wall** is a wall designed to resist the lateral displacement of soil or other materials.

**WATER HEATER** is an appliance designed primarily to supply hot water and is equipped with automatic controls limiting water temperature to a maximum of 210°F (99°C).

**WEATHER-EXPOSED SURFACES** are all surfaces of walls, ceilings, floors, roofs, soffits and similar surfaces exposed to the weather, excepting the following:

- 1. Ceilings and roof soffits enclosed by walls or by beams, which extend a minimum of 12 inches (305 mm) below such ceiling or roof soffits.
- 2. Walls or portions of walls within an unenclosed roof area, when located a horizontal distance from an exterior opening equal to twice the height of the opening.
- 3. Ceiling and roof soffits beyond a horizontal distance of 10 feet (3048 mm) from the outer edge of the ceiling or roof soffits.

WHEELCHAIR [For DSA/AC] is a chair mounted on wheels to be propelled by its occupant manually or with the aid of electric power, of a size and configuration conforming to the recognized standard models of the trade.

WHEELCHAIR OCCUPANT OR WHEELCHAIR USER [For DSA/AC] is an individual who, due to a physical impairment or disability, utilizes a wheelchair for mobility.

**WINDOW WELL** is a soil-retaining structure at a window having a sill height lower than the adjacent ground elevation.

WORKING LEVEL OR WORKING AREA [For DSA/AC] is a platform, walkway, runway, floor or similar area fixed with reference to the hazard. This does not include ladders or portable or temporary means used for access, repair or maintenance, provided such means are removed immediately upon completion of the work.

WORK STATION [For HCD 2, DSA/AC] is an area defined by equipment and/or work surfaces intended for use by employees only, and generally for one or a small number of employees at a time. Examples include ticket booths; the employee side of grocery store checkstands; the bartender area behind a bar; the employee side of snack bars, sales counters and public counters; guardhouses; toll booths; kiosk vending stands; lifeguard stations; maintenance equipment closets; counter and equipment areas in restaurant kitchens; file rooms; storage areas; etc.

### SECTION 225 — X

No definitions.

### SECTION 226 — Y

YARD is an open space, other than a court, unobstructed from the ground to the sky, except where specifically provided by this code, on the lot on which a building is situated.

### SECTION 227 — Z

No definitions.

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system shall be provided on all new public school campus buildings as defined in Section 215. The approved fire alarm system shall be both automatic and manual and maintained in accordance with the California Electrical Code and California Fire Code, Section 1006.2.4.2.2.1.1 and Article 91. At least one manual box shall be installed for the purpose of manually initiating the fire alarm system

305.10.2 Modernization Project. A State Fire Marshal approved and listed automatic fire alarm system shall be installed in all modernization projects as defined in Section 214. The approved fire alarm system shall be both automatic and manual and maintained in accordance with the California Electrical Code and California Fire Code, Section 1006.2.4.2.2.1.1 and Article 91. When the requirements of this section are met, manual fire alarm pull boxes are not required throughout the modernization project. At least one manual box shall be installed for the purpose of manually initiating the fire alarm system.

305.11 Portable Building Located on Public School Campus— Automatic Fire Alarm System Requirements. [For SFM]

305.11.1 Permanent-Portable Building. A portable building that is used to serve or house students from kindergarten through

twelfth grade (K-12) and is certified as a permanent building on a new public school campus by the public school administration shall comply with the requirements of Section 305.10.1.

305.11.2 Permanent Portable Building—Modernization Project. A permanent portable building to undergo modernization efforts that is used to serve or house students from kindergarten through twelfth grade (K-12) and is certified as a permanent building by the public school administration shall comply with the requirements of section 305.10.2

305.11.3 Exempted Portable Buildings. [For SFM] A portable building as defined in Section 217 and certified by the public school administration as being sited on campus for less than three years is not required to install an automatic fire detection, automatic alarm or automatic sprinkler system.

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## SECTION 306 — REQUIREMENTS FOR GROUP F OCCUPANCIES

**306.1 Group F Occupancies Defined.** Group F Occupancies shall include the use of a building or structure, or a portion thereof,

(Text continues on page 1-19.)

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1-18.2 OCTOBER 12, 2006 SUPPLEMENT

### Division III—OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT

### SECTION 420A [FOR OSHPD 1]— HOSPITALS

420A.1 Scope. The provisions of this chapter shall apply to general acute-care hospitals, acute psychiatric hospitals, and general acute-care hospitals providing only acute medical rehabilitation center services. The provisions of chapter 421A shall apply to distinct part skilled nursing and intermediate-care services on a general acute-care or acute psychiatric hospital license, provided either in a separate unit or a freestanding building.

**420A.2** Application. New buildings and additions, alterations or repairs to existing buildings subject to licensure shall comply with applicable provisions of the California Electrical Code, California Mechanical Code, California Plumbing Code (Parts 3, 4 and 5 of Title 24) and this chapter.

EXCEPTIONS: 1. Facilities licensed and in operation prior to the effective date of this chapter shall not be required to institute corrective alterations or construction to comply with any new requirements imposed thereby or subsequently, except where specifically required or where the enforcing agency determines that a definite hazard to health and safety exists. Facilities for which preliminary drawings have been submitted to the enforcing agency prior to the effective date of this change shall not be required to comply with such new requirements, provided working drawings are submitted within one year of the effective date of such new requirements.

- 2. The provisions of this chapter do not prohibit the use of alternate space utilizations, new concepts of design, treatment techniques, equipment and alternate finish materials provided the intent of this chapter is accommodated and written approval for such alternative is granted by the enforcing agency. Written substantiating evidence in support of the alternate and a written request for consideration shall be submitted to the enforcing agency.
- 3. Nothing in this chapter shall prohibit the provisions of required services from a centralized service facility serving two or more licensed facilities when approved in writing by the licensing agency. Buildings and required spaces for services provided in a separate centralized service facility shall comply with all applicable provisions of these regulations and applicable local codes and ordinances for the services so provided.
- 4. A cute psychiatric hospitals and general a cute-care hospitals providing only a cute medical rehabilitation center services may provide for surgical and anesthesia services to be provided by an outside licensed facility when approved by the licensing agency.
- 5. When the Board of Corrections, the Department of Corrections or the Department of Youth Authority determines that a particular requirement for hospitals located in a correctional facility may compromise the safety, security or protection of staff, inmates or property, the enforcement agency shall consider an alternate design.

**420A.3 Definitions.** For the purpose of this chapter, the following terms shall have the meaning indicated:

AIR CONDITIONING is the process or system by which simultaneously the temperature, humidity, air motion and quality are maintained within required limits.

BASIC SERVICES are those essential services required for licensure as a hospital, including medical, nursing, surgical, anesthesia, laboratory, radiology, pharmacy, dietary services and support services. See "supplemental service."

CENTRAL AIR-HANDLING SYSTEMS are any units requiring ductwork on the supply or inlet side and serving more than one room.

**COURT** is an open exterior space bounded on three or more sides by the walls of a structure.

GENERAL ACUTE-CARE HOSPITAL is a hospital, licensed by the Department of Health Services, having a duly constituted governing body with overall administrative and professional responsibility and an organized medical staff which provides 24-hour inpatient care, including the basic services.

GOOSENECK SPOUT is a deck or fixture-mounted spout shaped so the discharge point is at least 5 inches (127 mm) above the fixture rim.

HANDWASHING FIXTURE is a special application sink having a water supply spout mounted so the discharge point is at least 5 inches (127 mm) above the fixture rim and equipped with hot and cold supply controls not requiring direct contact of the hands for operation. The fixture cannot be equipped with an aerator and wrist or elbow blade handles.

**HOSPITAL** is a general acute-care hospital, including those providing only acute medical rehabilitation center services and acute psychiatric hospitals.

LICENSING AGENCY is the Department of Health Services.

NURSING UNIT is a designated patient care area of the hospital which is planned, organized, operated and maintained to function as a unit. It includes patient rooms with adequate support facilities, services and personnel providing nursing care and necessary management of patients.

**OUTPATIENT SERVICE** is an organizational unit of the hospital, which provides nonemergency health-care services to patients.

SCRUB SINK is a sink used to wash and scrub the hands and arms during the aseptic preparation for surgery, and equipped with a supply spout and controls as required for a handwashing fixture.

**SERVICE SINK** is a sink located in a janitors' closet and designed for the purpose of cleaning mops and the disposal of waste water.

**SUPPLEMENTAL SERVICE** is an inpatient or outpatient service which is not required to be provided by law or regulation for licensure. A supplemental service, when provided, must accommodate the provisions of this chapter.

NOTE: See "basic services."

### 420A.4 General Construction.

420A.4.0 Services/systems and utilities. Services/systems and utilities that are necessary to the operation of an acute care hospital, skilled nursing facility, intermediate care facility, or correctional treatment center shall meet the structural requirements of this section. Examples of services/systems and utilities include normal power; emergency power; nurse call; fire alarm; communication and data systems; space heating systems; process load systems; cooling systems; domestic hot and cold water systems; fire-suppression systems; building drain and sewer systems; and medical gas systems that support basic and supplemental services.

Services from an acute care hospital, skilled nursing facility or a correctional treatment center may serve a building that does not comply with the structural requirements of the 1973 edition or later edition of the California Building Standards Code with prior approval of the Office.

**EXCEPTION:** Remodel projects that use available existing services/systems and utilities are exempted from the requirements of this section. The authority having jurisdiction may exempt minor addition, minor alteration, and minor remodel projects and projects to upgrade existing services/systems and utilities from the requirements of this section.

420A.4.0.1 Services/systems and utilities for hospital buildings.

420A.4.0.1.1 Additions, alterations, and remodels of conforming (SPC 3, 4, or 5) hospital buildings. Services/systems and utili-

ties for new buildings and additions, and alterations or remodels to existing conforming buildings shall originate in hospital buildings that have OSHPD-approved performance categories of SPC-3 or higher and NPC-4 or higher. The services/ systems and utilities shall not pass through or under buildings that do not have OSHPD-approved performance categories of SPC-2 or higher and NPC-4 or higher.

**EXCEPTIONS:** 1. Remodel and alteration projects that use available existing services/systems and utilities are exempted from these requirements.

- 2. Services/systems and utilities may pass through or under buildings that have OSHPD-approved nonstructural performance categories of NPC-2 or NPC-3, provided that the services/systems and utilities feeding the new building addition, alteration, or remodel conform with Section 1632A and are deemed by OSHPD to be free of adverse seismic interactions caused by potential failure of overhead or adjacent components.
- **420A.4.0.1.2** Additions, alterations, and remodels of SPC-2 hospital buildings. Services/systems and utilities for additions, alterations, or remodels of SPC-2 hospital buildings may originate in and pass through or under SPC-2 or better buildings that have an OSHPD-approved nonstructural performance category of NPC-3 or higher.

**EXCEPTION:** Services/systems and utilities may pass through or under buildings that have OSHPD-approved nonstructural performance categories of NPC-2, provided that the services/systems and utilities feeding the addition, alteration, or remodel conform with Section 1644A.13 and 1645A.7 and are deemed by OSHPD to be free of adverse seismic interactions caused by potential failure of overhead or adjacent components.

- **420A.4.0.1.3** Alterations and remodels of SPC-1 hospital buildings. Services/systems and utilities for alterations or remodels of SPC-1 hospital buildings may originate in and pass through or under SPC-1 or better buildings that have an OSHPD-approved nonstructural performance category of NPC-2 or higher.
- 420A.4.0.1.4 Buildings without SPC/NPC ratings. When services/systems and utilities for new buildings, additions, alterations, or remodels pass through or under hospital buildings which would not otherwise require evaluation for an SPC rating, such buildings shall be evaluated in accordance with the requirements of Section 1.3, Chapter 6, Part 1, California Building Standards Administrative Code, to determine the appropriate ratings, or shall be shown to meet the structural requirements of these regulations for new hospital buildings. The services/systems and utilities feeding the new building addition, alteration, or remodel shall conform with Section 1632A and shall be deemed by OSHPD to be free of adverse seismic interactions caused by potential failure of overhead or adjacent components.
- 420A.4.0.1.5 Buildings removed from acute-care hospital service. Services/systems and utilities for conforming acute care hospital buildings may pass through or under a building that has been removed from acute care hospital service until January 1, 2030 if the building removed from service remains under the jurisdiction of OSHPD and meets the performance requirements of Section 420A.4.0.1.1. Services/systems and utilities for nonconforming acute care hospital buildings may pass through or under a building that has been removed from acute care hospital service only if the building removed from service remains under the jurisdiction of OSHPD and meets the performance requirements of Section 420A.4.0.1.2.

EXCEPTION: Services/systems and utilities for acute care hospital buildings may pass through or under buildings that have been removed from acute care service and which do not meet the performance requirements of Section 420A.4.0.1.1 or Section 420A.4.0.1.2, provided all of the following are met:

- 1. The hospital has obtained an approved extension to the 2008 deadlines in accordance with Section 1.5.2, Article 1, Chapter 6 California Building Standards Administrative Code.
- 2. The extension request specifically includes a request to allow services/systems and utilities to pass through or under the building removed from acute care service. The services/systems and utilities may pass through or under the building for the duration of the extension.
- 3. The building removed from acute care service remains under the jurisdiction of OSHPD.

After January 1, 2030, services/systems and utilities for acute care hospital building shall not originate in or pass through or under a nonhospital building unless it has OSHPD-approved performance categories of SPC-3 or better and NPC-4 or better, and the nonhospital building remains under the jurisdiction of OSHPD.

420A.4.0.2 Services/systems and utilities for skilled nursing facilities, intermediate care facilities, and correctional treatment centers.

**420A.4.0.2.1** New buildings and additions. Services/systems and utilities for new buildings and additions shall not originate in or pass through or under structures that do not comply with the structural requirements of the 1973 edition or later edition of the California Building Standards Code. The structures must be under the jurisdiction of OSHPD.

EXCEPTION: As an alternate to this section, skilled nursing and intermediate care facilities, and correctional treatment centers may meet the requirements in Section 420A.4.0.1 for hospital buildings.

- 420A.4.0.2.2 Alterations and remodels. Services/systems and utilities for alterations or remodels of existing buildings may pass through structures that do not comply with the structural requirements of the 1973 edition or later edition of the California Building Standards Code, provided that the structure is under the jurisdiction of OSHPD, and the new services/systems and utilities passing through the buildings are anchored and braced for seismic forces in accordance with these regulations for new buildings and are free of adverse seismic interactions caused by potential failure of overhead or adjacent components.
- 420A.4.1 Service spaces. Spaces for dietary, laundry, morgue, ambulance entrance, receiving areas, power plants, mechanical equipment, incinerator, garbage can cleaning, automobile parking and storage areas for garbage, trash and medical gases shall be located and constructed to minimize noise, steam, odors, hazards and unsightliness in patient-care areas and bedrooms.
- 420A.4.2 Treatment spaces. Radiology, laboratory, pharmacy, physical therapy and service spaces serving only outpatients and similar outpatient service departments shall not be located in nursing units, surgical units, perinatal units, nursery areas, central sterilization rooms, food-service areas, power plants, mechanical equipment rooms, maintenance shops, general storage, laundry, employees' dressing or housekeeping facilities.

**EXCEPTION:** Physical and occupational therapy spaces of a rehabilitation service may serve both outpatients and inpatients.

- **420A.4.3 Treatment and exam room.** If a treatment room or an exam room is provided, it shall have a minimum area of 80 square feet  $(7.4 \text{ m}^2)$ , the least dimension of which shall be 8 feet (2438 mm).
- **420A.4.4 Outpatient waiting rooms.** Waiting rooms for outpatients shall provide a seating area and space for wheelchairs and have public corridor access to, or provisions for, public toilet, drinking fountain and telephone.

**NOTE:** One waiting area may serve more than one department or service.

**420A.4.5** If X-ray examinations are to be performed on outpatients, outpatient access to the radiological spaces shall not traverse a nursing unit.

**EXCEPTION:** Satellite radiology, laboratory, pharmacy, physical and occupational therapy space serving inpatients may be located in nursing units and inpatient treatment areas.

### 420A.5 Corridors.

**420A.5.1** The minimum width of corridors and hallways shall be 8 feet (2438 mm).

EXCEPTION: Patient-care corridors and hallways in hospitals for psychiatric care of patients who are not bedridden shall have a minimum clear and unobstructed width of 6 feet (1829 mm). For the purposes of this section, bedridden patients shall be defined as patients confined to beds who would be transported or evacuated in beds or litters.

NOTE: See Chapter 10 for stairs, exits and occupant loads.

**420A.5.2** Service corridors and hallways with anticipated light traffic volume for nonpatient use may be reduced to a width of 5 feet (1524 mm) if approved by the enforcing agency.

EXCEPTION: Corridors and hallways in administrative and business areas may be reduced to a width of 44 inches (1118 mm).

- 420A.5.3 Outpatient clinics or outpatient departments which contain facilities for outpatient use only, such as laboratory, X-ray, physical therapy or occupational therapy, shall have a minimum corridor or hallway width of 5 feet (1524 mm). Outpatient clinics and outpatient departments consisting only of waiting rooms, business offices, doctors offices, and examining rooms, where there is no traffic through such area to other services or to exits from the building, shall have a minimum corridor or hallway width of 44 inches (1118 mm).
- **420A.5.4 Handrails.** Corridors for patient traffic in areas providing skilled nursing, intermediate care or rehabilitation services shall be furnished with a handrail on both sides at a height not less than 30 inches (762 mm) or greater than 36 inches (914 mm).
- **420A.5.5** Corridor systems shall connect all patient rooms and essential services.

**EXCEPTION:** Covered pedestrian walkways connecting separate buildings are permitted for ambulatory, psychiatric or chemical dependency patients.

### 420A.6 Doors and Door Openings.

- **420A.6.1 Toilet room doors.** Doors to toilet rooms shall have an opening of not less than 32 inches (813 mm) clear in width and shall be equipped with hardware which will permit the door to swing outward or in a manner to negate the need to push against a patient who may have collapsed within the toilet room.
- **420A.6.2** See Section 1007.5 for minimum size of means of egress.
- **420A.6.3 Pocket doors.** Pocket sliding doors are not permitted.

EXCEPTION: Administration and business areas.

### 420A.7 Windows and Screens.

**420A.7.1** Rooms approved for the housing of patients shall be provided with natural light by means of exterior glazed openings excluding clerestory windows, obscure glass and skylights, with an area not less than one tenth of the total floor area.

#### EXCEPTIONS: 1. Intensive-care newborn nurseries.

2. Intensive-care units other than intensive-care nurseries shall be provided with exterior glazed openings, excluding obscure glass, sized and located in a manner to provide patients with an awareness of the outdoors.

### 420A.7.2

**420A.7.2.1** Patient room windows shall have sills not more than 36 inches (914 mm) above the floor. If operable windows are provided that require the use of tools or keys for operation, the tools or keys shall be located at the nurses' station.

EXCEPTION: Window sills in intensive-care units may be 60 inches (1524 mm) above the floor.

- **420A.7.2.2** If operable windows are provided in isolation rooms, they shall only be operable by the use of tools or keys which shall be located at the nurses' station.
- **420A.7.3** Safety glass or plastic glazing materials shall be used in windows in psychiatric patient areas.
- **420A.7.4** Windows which may be frequently left in an open position shall be provided with insect screens of 16 meshes to the inch.
- **420A.7.5** All portions of a building used by patients, personnel or other persons shall be provided with artificial light and a mechanically operated ventilating system as specified in the California Electrical Code and the California Mechanical Code.

### 420A.8 Ceiling Heights.

**420A.8.1 Minimum height.** The minimum height of ceilings shall be 8 feet (2438 mm).

EXCEPTION: Closet, toilet room and bathroom minimum ceiling heights shall not be less than 7 feet (2134 mm).

420A.8.2 Minimum height with fixed ceiling equipment. Operating rooms, emergency rooms, delivery rooms, radiographic rooms and other rooms containing ceiling-mounted, major fixed equipment or ceiling-mounted surgical light fixtures shall have ceiling heights to accommodate the equipment or fixtures and their normal movement.

### 420A.9 Interior Finishes.

### 420A.9.1 Floor finishes.

**420A.9.1.1** Floor finishes shall be smooth, waterproof and durable.

**EXCEPTION:** Upon written appropriate documented request, the licensing agency may grant approval of the installation of carpet. See Table 420A-A.

**420A.9.1.2** Resilient flooring, if used in toilet and bathing rooms, shall be continuous and extend upward onto the walls at least 5 inches (127 mm).

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- **420A.23.2.2** Supply. One supply storage space having a minimum area of 15 square feet  $(1.4 \text{ m}^2)$  shall be provided in each nursing unit. Supply storage may be within the clean utility room used only as part of a system for distributing clean and sterile supplies.
- **420A.23.2.3** Wheelchairs. A room or space shall be provided in each nursing unit for wheelchairs and stretchers. The wheelchair and stretcher space shall have a minimum area of 15 square feet  $(1.4 \text{ m}^2)$ .
- **420A.23.2.4** Sterile and unsterile supplies shall be stored separately.
- **420A.23.2.5** Food storage shall be as described in Section 420A.20.
- 420A.24 Morgue and Autopsy Facilities.
- **420A.24.1** General acute-care hospitals with a licensed bed capacity of 50 or more beds shall provide a morgue with autopsy facilities.
  - **EXCEPTION:** This may not be required if it can be demonstrated to the licensing agency that morgue and autopsy facilities are available locally.
- **420A.24.2** *Minimum requirements.* The morgue and autopsy space shall have a minimum of 250 square feet (23.2 m²) of floor area, no dimension of which shall be less than 10 feet (3048 mm), and provide for:
  - 1. Handwashing fixture.
- 2. Space for refrigerated compartments if human remains are held unembalmed. Refrigerated rooms and prefabricated body refrigerator temperatures shall not be higher than 45°F (25°C).
- 420A.25 Employee Dressing Rooms and Lockers.
- **420A.25.1** *Minimum facilities.* Hospitals shall provide the following:
- 1. Separate dressing rooms for male and female personnel with lockers, lavatory and toilet.
- 2. Additional dressing rooms for the surgical service and as required within any of the supplemental services.
- **420A.26 Janitorial and Housekeeping Facilities.** Janitorial facilities shall be provided to serve each department and nursing unit, and may be shared by compatible departments, except when specifically required by other sections.
- 420A.27 Laundry.
- **420A.27.1** If a laundry is to be provided, the following is required in addition to the laundry room:
- 1. A separate soiled linen receiving, holding and sorting room with handwashing fixture.
  - 2. A separate clean linen storage, issuing and holding room.
  - 3. Storage for laundry supplies.
- **420A.27.2** Outside service. If linen is processed off site, the following shall be provided within the hospital:
  - 1. A soiled linen holding room.
  - 2. A separate clean linen receiving and storage room.

### SUPPLEMENTARY SERVICES, GENERAL ACUTE HOSPITAL

- **420A.28** Acute Respiratory-care Service Space. The space requirements in Section 420A.36 shall be accommodated.
- **420A.29** Basic Emergency Service, Physician on Duty. The following shall be provided or made available to the basic emergency medical service:
- 1. A lobby area which provides a reception and control area, waiting area(s), public toilet facilities, public telephone(s), and a drinking fountain.
- 2. A nurses' station equipped with a work counter, charting space, communications system, space for supplies and a handwashing fixture.
- 3. A medication area within or adjacent to the nurses' station with a lockable door containing a work counter, refrigerator, locked storage for biologicals and drugs, and a sink.
- 4. Treatment room(s) shall have a minimum area of 80 square feet (7.4 m²), the least dimension of which shall be 8 feet (2438 mm). All treatment rooms shall have a handwashing fixture.
- 5. If an emergency operating room is provided, it shall meet the requirements of Section 420A.15.
  - 6. Observation room(s).
- 7. Additional staff support spaces as required, including, as a minimum, toilets, showers and lounge.
- 8. Negative-pressure treatment rooms for patients with airborne communicable disease, if such rooms are provided, shall be designated by labeling the room "Negative-pressure Treatment Room" on or adjacent to the corridor/hallway side of the door and shall meet the requirements of Section 420A.4.3.
- **420A.30 Burn Center Space.** A burn center shall comply with the requirements of Section 420A.36 and the following:
- 1. An equipment storage room that includes space for such additional equipment as circular rotating electric beds, vertically adjustable beds, and similar burn center equipment.
  - 2. A treatment area shall be provided.
- 3. The requirements of Section 420A.46 for rehabilitation center space, and Section 420A.48 for respiratory-care service space, must also be met.
- **420A.31** Cardiovascular Surgery and/or Catheterization Laboratory Service Spaces. A catheterization laboratory space shall be provided and shall include a minimum floor area of 420 square feet (39 m²) for the procedure room in addition to spaces for control, monitoring and recording equipment, and X-ray power and controls, and a minimum of one scrub sink for each catheterization laboratory.

Cardiovascular surgery space, in addition to any spaces required under Section 420A.15, shall include the following:

- 1. Operating rooms with a minimum floor area of 550 square feet  $(51.1 \text{ m}^2)$  of usable floor area exclusive of cabinets and casework with a minimum dimension of 20 feet (6096 mm).
  - 2. A pump work room.
- **420A.32 Chronic Dialysis Service Space.** A chronic dialysis service shall provide the following:
- 1. A minimum of 110 square feet  $(10.2 \text{ m}^2)$  of floor space, inclusive of aisles, per bed or station.
  - 2. Nurses' station.
  - 3. Utility room.
- 4. A minimum of one isolation area that may be designated as needed.

- 5. A waiting area.
- 6. A private room or office near the unit for conference space.
- 7. Storage space for supplies.
- 8. Machine storage room sized to accommodate the pumps, central distribution equipment and any other necessary equipment.
- 9. A segregated area for home dialysis training, if provided.
- **420A.32.1** Handwashing fixtures shall be provided for the following areas:
- 1. Nurses' station which may also serve up to eight patient beds or stations.
  - 2. Each room containing an isolation area.
  - 3. Utility room.
- 4. One additional handwashing fixture for every eight patients or fraction thereof not served by the nurses' station fixture.
  - 5. Dialysis water feedlines.
- **420A.33** Coronary-care Service Space. The service and equipment space requirements in Section 420A.36 for intensive-care units shall be provided.
- **420A.34 Dental Service Space.** Space shall be provided for a dental service, including dental radiography.

Handwashing fixture.

- **420A.35** Intensive-care Newborn Service Space. An intensive-care newborn nursery shall provide the following spaces, services and equipment:
- 1. A minimum of 80 square feet (7.4 m<sup>2</sup>) per infant, exclusive of the spaces listed in Items 6 through 8.
- 2. One handwashing fixture for each four infants or major fraction thereof.
- 3. The ability to provide 1,076 lux (100 footcandles) at each infant area when needed.
  - 4. A minimum of 10 electrical outlets at each infant area.
- 5. Two oxygen and one compressed air outlet at each infant area.
  - 6. Space for nurses' control station with charting space.
  - 7. Space for scrubbing and gowning.
  - 8. A visitors' waiting area adjacent to the unit.
- **420A.36** *Intensive-care Service Space.* The following service and equipment spaces shall be provided within the service:
- 1. The intensive-care service space shall contain not less than four or more than 12 beds. The intensive care service space may be designed as a suite when the requirements of Section 1007.5.9 are accommodated.
- 2. At least one negative pressure isolation room shall be provided for patients with an airborne communicable disease and shall comply with Section 420A.14.6.
  - **EXCEPTIONS:** 1. When a secondary entry is provided, pursuant to Section 420A.14.6.2, additional door bottom gasket and locking devices need not be provided.
  - 2. Adjoining toilet room, Section 420A.14.6.3, need not be provided.
- 3. Bed spaces shall provide at least 132 square feet (12.3 m²) with no dimension less than 11 feet (3353 mm), and with 4 feet (1219 mm) of clearance at each side and the foot of the bed, and with a minimum of 8 feet (2438 mm) between beds. The space shall be designed so that all beds shall be placed in relation to the

nurses' station or work area to permit, enable or allow maximum observation of patients.

- 4. Space for a nurses' control desk, charting space, lockable medicine cabinet, refrigerator and handwashing fixture.
- 5. Utility room with work counter at least 3 feet (914 mm) long, handwashing fixture and storage facilities.
  - 6. Soiled linen storage space.
  - 7. Clean linen storage.
  - 8. Supplies and equipment storage space.
- 9. Staff's toilet room shall contain a toilet and a handwashing fixture.
  - 10. A visitors' waiting area in close proximity to the unit.
- 11. In multibed rooms, not less than one handwashing fixture for each six beds.
- 12. Two oxygen outlets for each bed or a single outlet with a "Y" connection for each bed.
  - 13. One medical air outlet for each bed.
- 14. Two vacuum inlets for each bed or a single inlet with a "Y" connection for each bed.
  - 15. Cubicle curtains surrounding each bed.
- 16. Window area to provide patients with an awareness of the outdoors.
- 17. A direct-wired or battery operated wall clock with sweep second hand visible to each patient.
- 18. A direct-wired or battery operated wall-mounted inverval clock which can be easily activated.
- **420A.37 Intermediate-care Service.** An intermediate-care service unit shall be housed in a separate and distinct nursing unit and shall comply with the applicable requirements of Section 421A.
- **420A.38** Nuclear Medicine Space. If nuclear medicine is provided, the following shall be accommodated:
- 1. Access to a waiting area and public toilets if outpatients are being served.
  - 2. Handwashing fixtures.
- **420A.39 Occupational Therapy Service Space.** If an occupational therapy service space is provided, the following shall be accommodated:
- 1. A minimum floor area of 300 square feet  $(27.9 \text{ m}^2)$ , no dimension of which shall be less than 12 feet (3658 mm).
  - 2. An office space separate from the treatment area.
  - 3. Handwashing fixture.
- **420A.40** Outpatient Service Space. The following shall be provided or made available to the outpatient service space:
- 1. Waiting area(s) shall be provided with access to public toilet facilities, a public telephone and a drinking fountain.
- 420A.40.1 Clinical Facilities.
- **420A.40.1.1** General and special-purpose examination rooms shall have a minimum area of 80 square feet  $(7.4 \text{ m}^2)$ , the least dimension of which shall be 8 feet (2438 mm).
- **420A.40.1.2** Cast rooms, fracture rooms and cystoscopic rooms, if provided, shall meet the requirements of Section 420A.15.

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- 1. A designated area for home dialysis training.
- 2. Provisions for dialysis units shall be provided within each patient room.
  - 3. A handwashing fixture.
- **420A.48 Respiratory-care Service Space.** If a respiratory-care service is provided, space shall include:
- 1. A work area for cleaning, sterilizing and repairing equipment.
  - 2. Storage space for equipment and supplies.
  - 3. Office space.
  - 4. A handwashing fixture.
  - 5. A janitors' closet.
- **420A.49** Skilled Nursing Service Space. A skilled nursing service unit shall be housed in a separate and distinct nursing unit and shall comply with the applicable requirements of Section 421A.
- <sup>A</sup> 420A.50 Social Service Space. If provided, the social service A space shall include office or other space for privacy in interviewing, telephoning and conducting conferences.

- **420A.51** Speech Pathology and/or Audiology Service Space. If a speech pathology service is provided, space shall be provided for:
- 1. Tables and chairs to conduct interviews, consultations and treatment, and to accommodate patients in wheelchairs and stretchers.
- 2. A waiting area with access to public toilets if outpatients are being served.
  - 3. Handwashing fixture.
- 420A.51.1 If an audiology service is provided, there shall be, in addition to Items 1, 2 and 3 above, a minimum of one two-room testing suite that meets Standards S-3.1, 1960 (R-1971), Criteria for Background Noise in Audiometer Rooms, of the American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.
- **420A.52** Standby Emergency Medical Service, Physician on Call. The following shall be provided or made available to the standby emergency medical service.
- 1. A reception and control area, waiting areas, public toilet facilities, public telephones and a drinking fountain.
  - 2. A designated emergency room area.
  - 3. An observation room.
  - 4. Janitors' closet with service sink and storage space.

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#### TABLE 420A-A—ACCEPTABLE CEILING AND CARPETS LOCATIONS

AREAS/ROOMS	GENERAL ACUTE HOSPITAL CEILING/CARPETS		ACUTE PSYCHIATRIC HOSPITAL CEILING/CARPETS		SKILLED NURSING AND INTERMEDIATE-CARE FACILITIES CEILINGS/CARPETS		SURGICAL CLINICS AND OTHERS CEILINGS/CARPETS	
Patient bedrooms	3	əje	3	*	3	s)s	-	-
Patient corridors/hallways	3	*	3	*	3	*	3	*
Isolation rooms	2	N	3	*	-	-	3	N
Nurses' station	3	Y	3	Y	3	Y	3	Y
Utility rooms	2	N	2	N	2	N	2	-
Surgical units (Note 2) Operating rooms Surgical corridors/hallways	2 1 3	N N N	- - -	- - -	- - -	- - -	2 1 3	N N N
Recovery	3	N	_	-	-	_	3	aje
Radiological unit (Note 2) X-ray rooms (Note 1)	3 3	* N	3 3	* N	-	-	3 3	* N
Treatment rooms (Note 2)	2	N	3	N	2	N	2	N
Examination rooms	3	*	3	*	3	*	3	*
Administration	4	Y	4	Y	4	Y	4	Y
Central sterile supply	2	N	2	N	2	N	2	-
Clinical laboratories	3	N	3	N	=	-	3	-
Pharmacy	3	*	3	*	3	*	3	*
Morgue and autopsy	3	N	-	-	=	-	-	-
General storage rooms	3	N	3	N	3	N	3	-
Janitorial	2	N	2	N	2	N	2	-
Laundry	3	N	3	N	3	N	3	-
Soiled linen	2	N	3	N	3	N	3	-
Clean linen	3	N	3	N	3	N	3	-
Kitchens	1	N	1	N	1	N	1	N
Dining rooms	3	*	3	*	3	*	3	*
Dishwasher rooms	2	N	2	N	2	N	2	-
Dietary day storage	2	N	2	N	2	N	3	-
Catheterization laboratory	1	N	-	-	-	-	-	-
Chronic dialysis	3	*	-	-	-	-	3	*
Coronary care	3	ηk	-	-	-	-	-	-
Dental	3	ηk	-	-	-	-	3	*
Hydrotherapy	2	N	2	N	2	N	-	-
Intensive-care nursery	3	*	-	-	-	_	-	-
Intensive care	3	*	-	-	-	_	-	-
Occupational therapy	3	*	3	*	3	*	3	*
Obstetrical unit (Note 2) Delivery rooms Labor rooms, LDRP and LDR	3 1 3	* N N	- - -	- - -	- - -	- - -	- - -	- - -
Nurseries	3	N	-	-	=	_	-	-
Physical therapy	3	*	3	3/4	3	*	3	*
Radiation therapy	3	ηk	-	-		-	3	*
Speech pathology and audiology	3	Y	3	Y	3	Y	3	Y

Ceilings
1—Continuous surface equal in smoothness to enamel plaster.

2—Smooth and easily cleanable without perforations or fissures.

- Carpet permitted in mammography.
   Except those rooms specified otherwise.
- \*Upon approval by the licensing agency with adequate maintenance procedure—however, should the carpet not be maintained adequately, the licensing agency has the right to have it removed and replaced with another acceptable material.

Carpets Yes—Y No—N

For rooms not listed, contact the Office of Statewide Health Planning and Development (OSHPD).

For surgery and dialysis clinics, only patient-care areas are applicable.

Table applies to new construction, additions, remodels and conversions. The patching and replacement of existing materials in existing facilities will be permitted.

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<sup>3—</sup>Pin perforated, fine fissured or lightly textured. 4—Any finish meeting code requirements.

**421A.2** Application. New buildings and additions, alterations or repairs to existing buildings subject to licensure shall comply with applicable provisions of the California Electrical Code, California Mechanical Code and California Plumbing Code, Parts 3, 4 and 5 of Title 24 and this chapter.

EXCEPTION: See Section 420A.2.

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**421A.3 General Construction.** Skilled nursing and intermediate-care facilities shall comply with Sections 420A.4 through 420A.13 whenever applicable.

**421A.4** Nursing Service Space. The nursing service space shall accommodate the provisions of Section 420A.14.

EXCEPTIONS: 1. Patient bedrooms shall be designed to accommodate no more than 4 beds.

- 2. The negative-pressure isolation rooms required by Section 420A.14.6 need not be provided.
- 3. Special-purpose rooms for the purpose of single-patient occupancy shall be provided at a ratio of one room for every 35 patients or major fraction thereof. Negative-pressure isolation rooms may be included in determining the number of special-purpose rooms required for the facilities.
- 4. If provided, negative-pressure isolation rooms shall comply with the space and equipment requirements of Section 420A.14.6. The mechanical and plumbing systems shall comply with the California Mechanical Code and California Plumbing Code for a negativepressure isolation room.
- 5. A minimum of one bathtub or shower shall be provided for every 20 patients or major fraction thereof. Patients shall have access to at least one bathtub per floor.
- 6. Nurses' stations in freestanding skilled nursing and intermediate-care facilities shall be designed to serve no more than 60 beds with a maximum travel distance between the nurse's station entrance and the center of the doorway of the most remote patient bedroom, not exceeding 150 linear feet (45.72 linear m).

**NOTE:** This exception does not apply to distinct part skilled nursing and intermediate-care services provided as a separate unit in a general acute care hospital or acute psychiatric hospital.

**421A.5** Dietetic Service Space. The dietetic service space shall accommodate the provisions of Section 420A.20.

**EXCEPTION:** Dietary storage space shall be provided in accordance with the following schedule:

1 to 99 beds 2 square feet (0.19 m²) per bed

100 to 199 beds 200 square feet (18.6 m²) plus 1 square foot (0.0929 m²) per bed in excess of 100 beds

200 beds and over 300 square feet (27.9 m²), plus ½ square foot (0.0465 m²) per bed in excess of 200 beds

#### 421A.6 Pharmaceutical Service Space.

- **421A.6.1** Adequate space shall be provided at each nursing station for the storage of drugs and preparation of medication doses.
- **421A.6.2** All spaces and areas used for the storage of drugs shall be lockable and accessible to authorized personnel only.
- **421A.6.3** Specific space shall be designed for safe storage of narcotics and other dangerous drugs.
- **421A.6.4** Facilities shall provide for storage of drugs requiring refrigeration.
- **421A.6.5** The pharmacy shall not serve the general public unless a separate public entrance or a separate public serving window is utilized.

**421A.7** Activity Program Space. Designated activity areas appropriate to independent and group needs of patients shall be provided as follows:

#### 421A.7.1 Skilled nursing facilities.

- 1. Each floor of each building accommodating six or more patients shall be provided with a recreation room with a minimum of 100 square feet  $(9.3 \text{ m}^2)$ .
- 2. A minimum of 100 square feet  $(9.3 \text{ m}^2)$  plus 12 square feet  $(1.1 \text{ m}^2)$  per bed shall be provided for recreation and dining activities

#### 421A.7.2 Intermediate-care facilities.

- 1. Each floor of each building accommodating five or more patients shall be provided with a recreation room with a minimum of 150 square feet (13.9  $m^2$ ).
- 2. A minimum of 30 square feet  $(2.8 m^2)$  per bed for recreation and dining activities.
- 3. Outdoor space for activities and recreation.
- **421A.7.3** Recreation and dining spaces shall be provided with space to store equipment and supplies.

#### SUPPORT SERVICES

#### 421A.8 Administration Space.

**421A.8.1** An administration area shall be provided which shall include space for business, administration, admitting, public toilets, lobby and public telephone.

421A.8.2 Space shall be provided for the storage of medical records.

421A.8.3 An office for the director of nurses shall be provided. 421A.9 Sterile Supplies.

**421A.9.1** Each facility shall provide space for the storage of disposable sterile supplies or provide space for sterilization and disinfection equipment.

**EXCEPTION:** Facilities with contractual arrangements for outside autoclaving and sterilizing services.

**421A.9.2** Central sterile supply, if provided, shall accommodate the provisions of Section 420A.22.

#### 421A.10 Storage.

**421A.10.1** Facilities shall provide combined general and specialized storage in accordance with the following schedule:

Licensed Bed Capacity	Storage Area
1 to 10 beds	$120$ square feet $(11.2 \text{ m}^2)$ minimum
11 to 100 beds	12 square feet (1.1 m²) per bed
Over 100 beds	1,200 square feet (111.5 m <sup>2</sup> ) plus 5 square feet (0.47 m <sup>2</sup> ) per bed for
	5 square feet (0.47 m <sup>2</sup> ) per bed for
	each bed over 100

- **421A.10.2** Specialized storage spaces shall include those spaces identified in Section 420A.23.2 and the dietetic food storage of Section 421A.5.
- **421A.10.3** All storage spaces shall be directly accessible on the site of the licensed facility.
- **421A.11 Employee Dressing Rooms and Lockers.** Separate dressing rooms with toilets, lavatories and lockers for male and female personnel shall be provided.
- **421A.12** Janitorial and Housekeeping Facilities. For janitors' closet requirements, see Section 420A.26.
- **421A.13 Laundry.** If a laundry is provided, it shall accommodate the provisions of Section 420A.27.

#### **OPTIONAL SERVICES**

**421A.14 General.** Waiting areas and access to optional services for outpatients shall accommodate Sections 420A.4.4 and 420A.4.5.

#### 421A.15 Physical Therapy Service.

- **421A.15.1** The minimum floor area for a physical therapy service shall be 300 square feet  $(27.9 \text{ m}^2)$ , with no dimensions less than 12 feet (3658 mm).
- **421A.15.2** Toilet facilities shall be directly accessible and allow for patient transfer activities. See Chapter 11B for accessibility requirements.
- **421A.15.3 Equipment space.** See Title 22 for required equipment.
- 421A.15.4 A minimum of one handwashing fixture.
- **421A.16 Occupational Therapy Service.** An occupational therapy service shall accommodate the requirements of Section 421A.15.1, 421A.15.2 and 421A.15.4.

Storage space shall be provided.

**NOTE:** See Title 22 for required equipment, supplies and adaptive devices.

**421A.17** Speech Pathology and/or Audiology Service. At least one space free of ambient noise shall be provided.

A handwashing fixture.

- **421A.18 Social Work Service.** Office space for privacy in interviewing, telephoning and conferences shall be provided.
- 421A.19 Special Treatment Program Service.
- **421A.19.1** A special treatment program service providing therapeutic services to an identified mentally disordered population group shall be located in a distinct separate unit of the facility.
- **421A.19.2** The nursing service space shall comply with Section 421A.4.
- **421A.19.3** The activity program space shall provide a minimum of 25 square feet  $(2.3 \text{ m}^2)$  of dining and recreation space per bed.
- **421A.19.4** Indoor and outdoor spaces shall be designated for the special treatment program.

#### SECTION 422A [FOR OSHPD 3] — CLINICS

- **422A.1 Scope.** The provisions of this chapter shall apply to primary-care clinics, specialty clinics and psychology clinics. Primary-care clinics include free clinics, community clinics, employee clinics and optometric clinics. Specialty clinics include surgical clinics, chronic end-stage renal dialysis clinics and rehabilitation clinics.
- 422A.2 Application. All new buildings and additions, alterations or repairs to existing buildings subject to licensure shall comply with applicable provisions of the California Electrical Code, California Mechanical Code, California Plumbing Code (Parts 3, 4 and 5 of Title 24) and this chapter.

EXCEPTION: See Section 420A.2.

- **422A.3 Definitions.** See Section 420A.3.
- **422A.4 General Construction.** Clinics shall comply with Sections 420A.4.1 through 420A.4.5 wherever applicable.
- 422A.5 Corridors and Hallways.
- **422A.5.1** Corridor/hallway systems shall connect all essential services.
- 422A.5.2 Rehabilitation clinics shall have corridors and hall-ways of at least 5 feet (1524 mm) in width, with handrails on both sides.

**NOTE:** See Chapter 10 for corridor, hallway, stair, exit and occupancy requirements.

#### 422A.6 Doors and Door Openings.

- **422A.6.1 Doors.** Doors for patient use shall have an opening of not less than 3 feet (914 mm) in width. Where patients are transported by wheeled stretchers, doors shall provide a minimum opening of 44 inches (1118 mm).
- **422A.6.2 Pocket doors.** Except for administrative areas, pocket sliding doors are not permitted.
- **422A.7 Windows and Screens.** Where necessary to protect against entrance of insects, screens of 16 meshes per inch shall be installed on windows which may be left in an open position.

#### 422A.8 Ceiling Heights.

- 422A.8.1 Minimum height. The minimum height of ceilings shall be 8 feet (2438 mm), except in closets, toilet rooms and bathrooms where the minimum ceiling height shall not be less than 7 feet (2134 mm).
- 422A.8.2 Minimum height with fixed ceiling equipment. Operating rooms, radiographic rooms and other rooms containing ceiling-mounted major fixed equipment or ceiling-mounted surgical light fixtures shall have ceiling heights to accommodate the equipment or fixtures and their normal movement.

#### 422A.9 Interior Finishes—Floors and Bases.

- **422A.9.1** Floor finishes shall be smooth, water resistant and durable. Upon written, appropriately documented request, the enforcing agency may grant approval of the installation of carpet.
- **422A.9.2** The materials and textures of bases and the installation thereof shall be so as to minimize moisture infiltration. Wood bases are prohibited except in waiting areas and administration departments.
- 422A.9.3 Wall bases in operating rooms, cast rooms and other areas which are frequently subject to wet-cleaning methods shall be made integral and coved with the floor. Construction shall be without voids at the intersection of floor and wall surfaces.
- **422A.10 Walls and Ceilings.** For wall and ceiling finish requirements, refer to Section 420A.9 and Table 420A-A.

#### 422A.11 Elevators.

- **422A.11.1** Buildings over one story in height with accommodations or services for patients on floors without grade-level entrance shall provide at least one elevator sized in compliance with Section 3003.4.
- 422A.11.2 Elevators used for the routine transport of wheeled stretchers shall have minimum inside platform dimensions of 5 feet by 8 feet (1524 mm by 2438 mm) and a minimum clear door opening of 3 feet 8 inches (1118 mm).

#### 422A.12 Garbage—Solid Wastes and Trash Storage.

- **422A.12.1** A lockable room or screened enclosure of at least 25 square feet (2.3 m<sup>2</sup>) shall be provided for the washing and cleaning of garbage containers and for the storage of garbage, trash and other solid wastes. Such room or screened enclosure shall include the following:
- 1. A concrete floor with a curb and with a drain connected to the sewer.
- 2. Steam or hot water and cold water supplies in accordance with the California Plumbing Code.
- 3. A minimum floor area of not less than 25 square feet  $(2.3 \, m^2)$ , the least dimension of which shall be 4 feet  $(1219 \, mm)$ . This amount of space may not be required by the enforcing agency if there is proposed a method of handling, storage, or cleaning of

containers which requires a lesser amount of space. Additional space may be required by the enforcing agency when special operations or collection and disposal methods result in greater than usual accumulation of solid wastes.

**422A.12.2** Trash compactor systems shall meet the drainage and wash-down requirements under Section 422A.12.1, Items 1 and 2.

**EXCEPTION:** If a dumpster system is proposed, operational procedures for handling and storage must be specifically approved by the local health officials.

**422A.13 Laundry and Trash Chutes.** Gravity-type laundry and trash chutes shall conform with Section 420A.13.

#### PRIMARY CARE CLINICS

- **422A.14** Abortion Services. Clinics with abortion services shall provide, in addition to the basic clinic facilities:
- 1. Postabortion recovery area with a minimum area of 60 square feet  $(5.6 \, m^2)$  per recovery bed, with cubical curtains for patient privacy.
  - 2. Space for the storage of patient clothing and personal items.
- 3. A room or private area of at least 60 square feet  $(5.6 \text{ m}^2)$  for preabortion and postabortion counseling.
- **422A.15** Clinical Facilities. Clinical facilities shall include the following:
- 1. Examination rooms shall have a minimum area of 70 square feet (6.5 m²), the least dimension of which shall be 7 feet (2134 mm), excluding such spaces as vestibule, toilet closet and work counter.
- 2. Treatment rooms for minor surgical procedures and cast procedures, if provided, shall have a minimum area of 120 square feet (11.2 m<sup>2</sup>), the least dimension of which shall be 10 feet (3048 mm), excluding such spaces as vestibules and work counters.
  - **EXCEPTION:** Treatment rooms used for aspiration abortion may be, as a minimum, sized as examination rooms.
- 3. Examination and treatment rooms, including those used for abortion, shall be equipped with handwashing fixtures.
  - EXCEPTION: Examination and treatment rooms used for routine examinations or where surgical procedures are not performed may be equipped with fixtures having wrist or elbow controls.
- 4. Space shall be designed for charting and storage of clinical records.
- 5. A lockable drug distribution station with space for a refrigerator.
- 6. A utility room which contains storage, sinks, work counter and separate clean and soiled linen hampers. The room shall be designed for the separation of clean and dirty work areas. Separate clean and soiled utility rooms may be designated.

#### **BIRTHING CLINICS**

- **422A.16 Birthing Clinics.** Birthing clinics shall accommodate the provisions of Sections 422A.17.4, 422A.17.5 and 422A.17.6, as well as the following:
- 1. A birthing room shall provide not less than 156 square feet  $(14.5 \text{ m}^2)$ , with a minimum dimension of 12 feet (3658 mm) of usable floor space.
- 2. An adjoining toilet room with a nurses' call system and a lavatory.
  - 3. Direct access to a patient shower.

- 4. A handwashing fixture located within or directly outside the room. If located within the room, the fixture may be screened or within openable casework.
- 5. A nurses' call system which will alert the nearest continually staffed nurses' station.
- 6. Lighting capable of 1076 lux (100 footcandles) at working surfaces. Dimmer switches may be used.
  - 7. Oxygen and suction capabilities, portable or piped.
  - 8. Space for a crash cart.
- 9. Space for supplies and equipment, as well as separate spaces for clean and soiled linen.

#### SPECIALTY CLINICS

#### 422A.17 Surgical Clinics.

- **422A.17.1** Operating rooms shall have a minimum floor dimension of 15 feet (4572 mm) and shall contain not less than 270 square feet (25.1  $m^2$ ) of floor area and have provisions for the following:
  - 1. Clock and elapsed timer.
  - 2. X-ray film illuminator.
- 422A.17.2 Cast rooms, fracture rooms and cystoscopic rooms, if provided, shall have minimum floor area of 180 square feet (16.7 m<sup>2</sup>), no dimension of which shall be less than 11 feet (3353 mm).
- **422A.17.3** Scrub sinks. A minimum of two scrub sinks shall be provided in a surgical unit containing one operating room. Four scrub sinks shall be provided in surgical units containing two operating rooms. One additional scrub sink shall be provided for each additional operating room.
- **422A.17.3.1** Clock. A direct-wired or battery-operated clock or other equivalent timing device shall be visible from the scrub-up sinks
- 422A.17.4 Clean-up room. Each surgical unit shall provide a clean-up room with a handwashing fixture and work space which is separate from any surgical sterilizing facilities. The clean-up room shall provide 24 square feet (2.2 m²) per operating room up to eight operating rooms, with no dimensions less than 6 feet (1829 mm). The clean-up room may be the soiled work area of the central sterile supply.
- **422A.17.5** *Cart storage. Space for clean and soiled cart storage shall be provided if a case cart supply system is proposed.*
- **422A.17.6 Janitors' closet.** A janitors' closet having a minimum floor area of 15 square feet  $(1.4 \, m^2)$  and a service sink shall be provided for the surgery suite. The janitors' closet shall serve no other areas.
- **422A.17.7 Lockers.** Separate dressing rooms with lockers, showers, lavatories and toilets shall be provided for male and female staff.
- **422A.17.8 Support spaces.** A surgical supervisor's station, a sterile supply storage facility stretcher space and instrument storage facilities shall be provided.
- **422A.17.9** Outpatient change area. A separate space shall be provided where outpatients change from street clothing and are prepared for surgery. This would include provisions for clothing storage, toilets, sink space for clothing change and gowning area.
- **422A.17.10 Postanesthesia recovery.** The postanesthesia recovery unit shall be provided and contain the following spaces:
- 1. Size. Floor area of at least 70 square feet  $(6.5 \text{ m}^2)$  per bed, exclusive of the spaces listed below in Items 2 and 3.

- 2. Nurses' control area. Space for a nurses control desk, signal system annunciator, charting space, lockable medicine cabinet, refrigerator and handwashing fixture.
- 3. **Storage.** Separate storage spaces of at least 10 square feet (0.929 m<sup>2</sup>) for clean and soiled linen, supplies and equipment.
- 4. Provisions for piped or portable oxygen and suction systems at each bed location.
- **422A.17.11** Central sterile supply. A central supply and sterilizing area shall be provided. Rooms and spaces to provide for the following services and equipment:
- 1. **Soiled work area.** A receiving and gross cleaning area of at least 50 square feet (4.7 m<sup>2</sup>) which shall contain work space and equipment for cleaning medical and surgical equipment and for disposal of or processing unclean material.
- 2. **Clean work area.** A clean work area of at least 50 square feet (4.7 m<sup>2</sup>) which shall contain space and equipment for sterilizing medical and surgical equipment and supplies.
- 3. **Separation.** There shall be separation of soiled or contaminated supplies and equipment and clean work areas.
  - 4. Space for sterilizing equipment.
- 5. Separate storage space for sterile supplies and unsterile supplies.
- 6. All sterilizers and autoclaves, except small instrument sterilizers which emit steam exhaust, shall be vented to the outside of the building. Such vents shall be independent from the plumbing vent system.
- **422A.18 Chronic Dialysis Clinics.** A chronic dialysis clinic shall provide the following:
- 1. A minimum of 100 square feet  $(9.3 \text{ m}^2)$  of floor space, inclusive of aisles, per bed or station.
- 2. Nurses' station equipped with a cabinet, a desk, space for records, a telephone, and a specifically designated and well-illuminated medicine storage compartment with a lockable door.
- 3. Utility room which shall provide for the separation of clean and dirty work areas and shall include work counters and cabinets
- 4. If an isolation room is provided, the room shall have a minimum of 100 square feet  $(9.3 \text{ m}^2)$  of usable floor space.
  - 5. A waiting area.
- 6. A private room or office near or contiguous with the unit for conference space for patients and staff.
  - 7. Storage space for supplies and equipment.
  - 8. Separate secure storage for all contaminated materials.
- 9. An equipment room sized to accommodate the pumps, central distribution equipment and any other necessary equipment.
- 10. Patient toilets shall be directly accessible and shall be equipped with bedpan flushing attachments.
  - 11. Staff lockers and change areas with toilets.
- 12. A janitors' closet of at least 15 square feet  $(1.4 \, m^2)$  with service sink and storage space.
  - 13. Separate clean and soiled linen storage.
  - 14. Space for admitting, business and administration areas.
- **422A.18.1** Home training, if provided within the unit, shall contain 110 square feet  $(10.2 \text{ m}^2)$  of usable enclosed floor space.

- **422A.18.2** At least one handwashing fixture shall be provided for each of the following areas:
- 1. Nurses' station which may also serve up to eight patient beds or stations.
  - 2. Isolation room.
  - 3. Home training room.
  - 4. Utility room.
- 5. One additional handwashing fixture for every eight patients, or fraction thereof, not served by the nurses' station fixture.
  - 6. Dialysis water feedlines.
- **422A.19 Rehabilitation Clinics.** Rehabilitation clinics shall meet the general requirements of Sections 422A.4 through 422A.13, as well as the following sections.
- **422A.19.1** Occupational therapy service space, if provided, shall include the following:
- 1. A minimum floor area of 300 square feet  $(27.9 \text{ m}^2)$ , no dimension of which shall be less than 12 feet (3658 mm).
  - 2. An office space separate from the treatment area.
- 3. Storage space for equipment and supplies, as well as separate spaces for clean and soiled linen.
  - 4. Handwashing sink.
- **422A.19.2** Physical therapy service space. A physical therapy service space shall be provided to accommodate the following:
- 1. A physical therapy treatment space of at least 300 square feet  $(27.9 \text{ m}^2)$ , no dimension of which shall be less than 12 feet (3658 mm).
  - 2. An office space, separate from the treatment area.
  - 3. A minimum of one handwashing sink in the treatment area.
- 4. Storage space for equipment and supplies, as well as separate spaces for clean and soiled linen.
- **422A.19.3** Audiology service space. If an audiology service is provided, the following shall be provided:
- 1. A minimum of one two-room testing suite that meets Standards S-3.1, 1960 (R-1971), Criteria for Background Noise in Audiometer Rooms, of the American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.
- 2. Space for tables and chairs to conduct interviews, consultations and treatment.
  - 3. Storage space for equipment and supplies.
  - 4. Handwashing sink in each treatment area.
- **422A.19.4 Speech pathology.** If a speech pathology service is provided, there shall be:
- 1. Space for tables and chairs to conduct interviews, consultations and treatment.
  - 2. Storage space for equipment and supplies.
  - 3. Handwashing sink in each treatment room.

#### PSYCHOLOGY CLINICS

**422A.20 Psychology Clinics.** Psychology clinics shall provide at least an interview room, consulting room and group therapy room, in addition to meeting the general requirements of Sections 422A.4 through 422A.13.

# SECTION 423A [FOR OSHPD 1, 2, 3 & 4] — HEALTH FACILITY SYSTEMS

**423A.1** Gas and Vacuum Systems. The design, installation and testing of medical gas and vacuum systems shall be in accordance with NFPA 99-2002, Standard for Health Care Facilities.

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- **423A.2** Hyperbaric Facilities. The design and construction of hyperbaric facilities shall conform to NFPA 99-2002, Standard for Health Care Facilities.
- **423A.3** Laboratories. The design and construction of hospital laboratories shall conform to NFPA 99-2002, Standard for Health Care Facilities.
- **423A.4 Design Requirements for Ethylene Oxide (ETO) Sterilization Areas.** The design requirements for ethylene oxide (ETO) sterilization areas shall be as follows:
- **423A.4.1** Air changes. For required air changes, see the California Mechanical Code.
- **423A.4.2 Exhaust requirements.** For exhaust requirements, see the California Mechanical Code.
- **423A.4.3 Discharge point.** For discharge point requirements, see the California Mechanical Code.
- **423A.4.4 Emergency power.** When the ETO sterilizers are on emergency power during periods of power outage, the exhaust system shall be on emergency power.
- **423A.4.5** Alarm system. An audible and visual alarm system shall be installed to alert sterilizer operating personnel if the airflow falls below design cubic feet per minute (L/s).
- 423A.4.6 Ventilation requirements.
- 423A.4.6.1 Ventilation of sterilizer door area. The system shall be designed to capture the ETO when the door is opened following the completion of the sterilization process. A hood or canopy closed on each end should be installed over the sterilization door. A hood or canopy shall be connected to a dedicated exhaust ventilation system.
- **423A.4.6.2** Aeration units. For ventilation requirements involving aeration units, see the California Mechanical Code.
- **423A.4.6.3** *Capture box.* For ventilation requirements requiring a capture box, see the California Mechanical Code.
- **423A.4.6.4** Cylinder change. For ventilation requirements during cylinder change, see the California Mechanical Code.
- **423A.4.6.5** Sterilizer relief valve. For sterilizer relief valve ventilation requirements, see the California Mechanical Code.
- **423A.4.7 Gas Valves.** Installation of gas line hand valves at the connection to the supply cylinders are required to minimize leakage during cylinder change.
- **423A.5 Water Installations.** Prior to utilization of newly constructed or altered domestic water piping systems, all affected domestic water piping shall be sterilized using procedures prescribed in AWWA C651-92.

# SECTION 424A [FOR OSHPD 4] — CORRECTIONAL TREATMENT CENTERS

- **424A.1 Scope.** The provisions of this chapter shall apply to Correctional Treatment Centers.
- **424A.2** Application. New buildings and additions, alterations or repairs to existing buildings subject to licensure shall comply with applicable provisions of the California Electrical Code, California Mechanical Code and California Plumbing Code, Parts 3, 4, and 5, of Title 24 and this chapter.

#### 424A.3 Definitions.

**BASIC SERVICES** for Correctional Treatment Centers are those services required for licensure as a Correctional Treatment Center, including medical, surgical, psychiatrist, psychologist, nursing, pharmacy, and dietary. See "Optional Services."

HAND WASHING FIXTURE is a special application sink having a water supply spout mounted so the discharge point is at least 5 inches (127 mm) above the fixture rim and equipped with hot and cold supply controls not requiring direct contact of the hands for operation. The fixture cannot be equipped with an aerator and wrist or elbow blade handles. Gooseneck spouts shall not be used in Correctional Treatment Centers.

LICENSING AGENCY is the Department of Health Services.

**OPTIONAL SERVICES** are inpatient or outpatient services which are not required to be provided by law or regulation for licensure. An optional service, when provided, must accommodate the provisions of this chapter. See "Basic Services."

**OUTPATIENT SERVICE** is an organizational unit of the Correctional Treatment Center which provides nonemergency health care services to patients.

#### 424A.4 General Construction.

- **424A.4.0** Services/systems and utilities. Correctional treatment centers shall comply with this section.
- 424A.4.1 Service spaces. Spaces for dietary, laundry, morgue, ambulance entrance, receiving areas, power plants, mechanical equipment, incinerator, garbage can cleaning, automobile parking and storage areas for garbage, trash and medical gases shall be located and constructed to minimize noise, steam, odors, and hazards in patient care areas and bedrooms.
- 424A.4.2 Treatment spaces. Radiology, laboratory, pharmacy and physical therapy spaces shall not be located in nursing units, surgical units, perinatal units, nursery areas, central sterilization rooms, food service areas, power plants, mechanical equipment rooms, maintenance shops, general storage, laundry, employees' dressing or housekeeping facilities.
- **424A.4.3 Treatment and exam room.** If a treatment room or an exam room is provided, it shall have a minimum area of 80 square feet  $(7.4 \text{ m}^2)$ , the least dimension of which shall be 8 feet (2438 mm).

#### 424A.5 Corridors.

424A.5.1 The minimum width of corridors shall be 8 feet (2438 mm).

EXCEPTION: Patient-care corridors in Correctional Treatment Centers for psychiatric care of patients who are not bedridden shall have a minimum clear and unobstructed widthof 6 feet (1829 mm). For the purpose of this section, bedridden patients shall be defined as patients confined to beds who would be transported or evacuated in beds or litters.

NOTE: See Chapter 10 for stairs, exits and occupant loads.

424A.5.2 Service corridors with anticipated light traffic volume for nonpatient use may be reduced to a width of 5 feet (1524 mm) if approved by the enforcing agency.

**EXCEPTION:** Corridors in administrative and business areas may be reduced to a width of 44 inches (1118 mm).

- **424A.5.3 Handrails.** Corridors for patient traffic in areas providing skilled nursing, intermediate care or rehabilitation services shall be furnished with a handrail on both sides at a height not less than 30 inches (762 mm) or greater than 36 inches (914 mm).
- **424A.5.4** Corridor systems shall connect all patient rooms and essential services.

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#### 424A.6 Doors and Door Openings.

- 424A.6.1 Toilet room doors. Doors to toilet rooms shall have an opening of not less than 32 inches (813 mm) clear in width and shall be equipped with hardware which will permit the door to swing outward or in a manner to negate the need to push against a patient who may have collapsed within the toilet room.
- **424A.6.2** See Section 1007.5 for minimum size of means of egress.
- 424A.6.3 Pocket doors. Pocket sliding doors are not permitted.

  EXCEPTION: Doors not serving as exit doors from administration
- **424A.6.4** Doors to patient bedrooms shall be provided with a view window with a minimum area of 288 square inches (185 806 mm<sup>2</sup>). Window sill height shall not be higher than 42 inches (1067 mm) from the floor.

#### 424A.7 Windows and Screens.

- **424A.7.1** Rooms approved for the housing of patients shall be provided with natural light by means of glazed openings.
- 424A.7.2 When windows are operable, they shall be provided with insect screens of 16 meshes to the inch.
- **424A.7.3** All portions of a building used by patients, personnel or other persons shall be provided with artificial light and a mechanically operated ventilating system as specified in the California Electrical Code and the California Mechanical Code.
- **424A.7.4** Each patient bedroom shall be provided with viewing windows from the corridor to allow full and unobstructed visual observation of the patient.

#### 424A.8 Ceiling Heights.

**424A.8.1** *Minimum height.* The minimum height of ceilings shall be 8 feet (2438 mm).

**EXCEPTION:** Closet, toilet rooms and bathroom minimum ceiling heights shall not be less than 7 feet (2134 mm).

424A.8.2 Minimum height with fixed ceiling equipment. Rooms containing ceiling-mounted, major fixed equipment or ceiling-mounted surgical light fixtures shall have ceiling heights to accommodate the equipment or fixtures and their normal movement.

#### 424A.9 Interior Finishes.

- 424A.9.1 Floors finishes.
- **424A.9.1.1** Floor finishes shall be smooth, waterproof and durable.

**EXCEPTION:** Upon written appropriate documented request, the enforcing agency may grant approval of the installation of carpet. See Table 420A-A.

**424A.9.1.2** Resilient flooring, if used in toilet and bathing rooms, shall be continuous and extend upward onto the walls at least 5 inches (127 mm).

#### 424A.9.2 Wall bases.

**424A.9.2.1** The material and textures of bases and the installation thereof shall be such as to minimize dust-catching surfaces, moisture, infiltration and the harboring of vermin.

**EXCEPTION:** In locations where carpet is permitted as a floor finish material, the use of carpeted base (coved or strip base) up to a maximum height of 5 inches (127 mm) is also permissible.

- **424A.9.2.2** Wood bases are prohibited except in administration departments and other offices described in Section 424A.20.
- 424A.9.2.3 Wall bases in kitchens, operating rooms, delivery rooms, emergency operating rooms, cast rooms, special procedure rooms and other areas which are subject to wet cleaning methods shall be made integral and coved with the floor, and constructed without voids at the intersection of floor and wall surfaces.
- **424A.9.3** Walls. Interior wall finishes shall be smooth, washable and durable.
- **424A.9.4** Ceilings. Ceiling finishes shall be in compliance with Table 420A-A.
- **424A.9.5** Walls and ceiling finish requirements do not apply to boiler rooms, mechanical equipment rooms, administration departments, other offices, enclosed stairways, maintenance shops and similar spaces.

#### 424A.10 Elevators.

- **424A.10.1** Elevators shall be conveniently located for use of patients and personnel.
- 424A.10.2 Patient elevators shall have minimum inside platform dimensions of 5 feet by 8 feet (1524 mm by 2438 mm) and a minimum clear door opening of 3 feet, 8 inches (1118 mm).
- **424A.10.3** Passenger elevators shall have minimum inside platform dimensions of 4 feet, 8 inches by 7 feet, 4 inches (1422 mm by 2236 mm).
- **424A.10.4** Buildings over one story in height with accommodations or services for patients on floors without grade level entrance shall provide at least one passenger or patient elevator.
- **424A.10.5** If bed patients are accommodated on one or more floors, other than the main entrance floor or where operating rooms or delivery rooms are above or below the main entrance floor, at least one patient elevator shall be provided.
- **424A.10.6** At least one patient elevator and one service elevator shall be provided in Correctional Treatment Centers with a capacity of 60 to 149 beds on floors other than the main entrance floor.
- **424A.10.7** At least one patient elevator, one passenger elevator and one service elevator shall be provided in hospitals with a capacity of 150 or more beds on floors other than the main entrance floor.
- **424A.10.8** If elevators in the correctional institution meet the above size requirements and are easily accessible, the elevators need not be duplicated in the Correctional Treatment Centers.
- 424A.11 Garbage—Solid Waste and Trash Storage. Rooms or screening enclosures shall be provided for the washing and cleaning of garbage containers and for the storage of garbage, trash, and other solid wastes. Such rooms or screening enclosures shall include the following:
- 1. A concrete floor with a curb and with a drain connected to the sewer.
  - 2. Steam or hot-water and cold-water supply.
- 3. A minimum floor area of  $\frac{1}{2}$  square foot  $(0.046 \, \text{m}^2)$  per bed, but not less than 25 square feet  $(2.3 \, \text{m}^2)$ , the least dimension of which shall be 4 feet  $(1219 \, \text{mm})$ .
- 4. A method of limiting access to the material except by authorized persons.

#### Division VI—DEPARTMENT OF FOOD AND AGRICULTURE

# SECTION 450A [FOR AGR] — MEAT AND POULTRY PROCESSING PLANTS

- **450A.1** General Construction. The buildings shall be of sound construction and kept in good repair.
- **450A.1.1** The doors, windows, skylights and other outside openings of the plant shall be protected by fitted screens or other devices, such as air screens, against the entrance of flies and other insects.
- **450A.1.2** Outside doors shall be hung so as to be close fitting when closed.

**EXCEPTION:** Outside doors in receiving and feeding rooms need not meet this requirement.

Doors shall be provided with self-closing devices where necessary to prevent the entry of vermin into processing and storage rooms.

450A.1.3 Rooms or compartments used for edible products shall be separated and distinct from inedible products departments and from rooms where live poultry are held or slaughtered. Separate rooms shall be provided when required for conducting processing operations in a sanitary manner; and all rooms shall be able to accommodate equipment for processing operations.

**NOTE:** In the event of specific conflict, in federally inspected plants, between the provisions of Title 24 and federal regulations, the federal regulations shall take precedence.

- **450A.1.4** The rooms and compartments in which any product is prepared or handled shall be free from objectionable odors.
- **450A.1.5** The outer premises of every official establishment, including docks and areas where cars and vehicles are loaded, and the driveways, approaches, yards, pens and alleys shall be paved.
- **450A.2 Refuse Rooms.** A separate refuse room shall be required in official establishments where accumulations of refuse occur. Refuse rooms shall be entirely separate from other rooms in the establishment, and shall provide for the following:
  - 1. Tightfitting doors.
  - 2. Ventilation.

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- 3. Drainage.
- 4. Cleanup facilities.
- 5. Floors and walls to a height of 6 feet (1829 mm) above the floor shall be impervious to moisture.
- 6. Wall above that height, and ceilings, shall be moisture resistant.
- 450A.3 Rooms for Holding Carcasses for Further Inspection. Rooms or other acceptable facilities in which carcasses or parts thereof are held for further inspection shall be in such numbers and such locations as needs of the inspection in the establishment may require. These rooms or facilities shall be equipped with hasps for locking.
- **450A.4 Coolers and Freezers.** Coolers and freezers shall be of adequate size and capacity and have cooling capability to fully enable compliance with the regulations governing the inspection of meat and poultry and meat and poultry products.
- **450A.5** Boiler Room. The boiler room shall be a separate room where necessary to prevent dirt and objectionable odors entering from it into any room where dressed poultry or poultry products are prepared, handled or stored.

- **450A.6** Inspector's Office. Office space for the use of government personnel shall be provided. The room or space must meet the approval of the inspection service and provide for the following:
  - 1. Light
  - 2. Heat
  - 3. Ventilation
  - 4. Desk space
  - 5. File cabinets
- **450A.7 Facilities for Program Employees.** Establishments shall have facilities for program employees.
- **450A.8** Lunch Rooms. Lunch rooms or lunch areas separate from the processing, packing or supply rooms shall be provided in establishments where employees eat their lunches.
- **450A.9 Floors.** All floors in rooms where exposed products are prepared or handled shall be constructed of, or finished with, materials impervious to moisture. The floors in killing, ice cooling, ice packing, eviscerating, cooking, boning and cannery rooms shall be graded for complete runoff with no standing water.
- **450A.10** Walls, Posts, Partitions and Doors. All walls, posts, partitions and doors in rooms where exposed products are prepared or handled shall be smooth and constructed of materials impervious to moisture to a height of at least 8 feet above the floor. All surfaces above this height must be smooth and finished with moisture-resistant material.
- **450A.11 Ceilings.** Ceilings must be moisture resistant in rooms where exposed products are prepared or handled, finished and sealed.
- **450A.12 Rails.** Rails should be located and passageway space provided so that exposed product does not come in contact with posts, walls and other fixed parts of the building, or with barrels, boxes or other containers trafficked through holding and operation areas.
- **450A.13 Lighting.** There shall be either natural or artificial light or both for all rooms and compartments.
- **450A.13.1** All rooms in which poultry or livestock are killed, eviscerated or otherwise processed shall have at least 30 footcandles (323 lx) of light intensity on all working surfaces.

**EXCEPTIONS:** 1. At the inspection stations such light intensity shall be at least 50 footcandles (538 lx).

- 2. In all other rooms in which poultry or livestock are not killed, eviscerated or otherwise processed, there shall be provided at least 5 footcandles (54 lx) of light intensity when measured at a distance of 30 inches (762 mm) from the floor.
- **450A.14 Ventilation.** There shall be either natural or artificial ventilation, adequate to control odors, vapors and condensation to the extent necessary to prevent adulteration of product and the creation of insanitary conditions, in all rooms and compartments.
- **450A.14.1** Freezing rooms, other than those for plate freezers or liquid freezing, shall have forced-air circulation, and freezers and coolers shall be equipped with floor racks or pallets unless other means are used which will assure that products will be maintained in a wholesome condition.
- **450A.14.2** Toilet rooms shall be ventilated to the outside of the building.
- 450A.15 Lavatories, Toilets and Other Sanitary Facilities.
- **450A.15.1** Lavatory and toilet accommodations, including but not limited to, running hot and cold water, shall be provided as follow in Table 450A-A:

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#### TABLE 450A-A

PERSONS OF SAME SEX	TOILET BOWLS REQUIRED
1 to 15, inclusive	1
16 to 35, inclusive	2
36 to 50, inclusive	3*
56 to 80, inclusive	4*
For each additional 30 persons in excess of 80	1*

<sup>\*</sup>Urinals may be substituted for toilet bowls, but only to the extent of one third of the total number of bowls stated.

- **450A.15.2** Lavatories shall be in or adjacent to toilet and locker rooms and at other places in the plant to provide for the cleanliness of all personnel handling products.
- **450A.15.3** Toilet rooms opening directly into rooms where products are exposed shall have self-closing doors.
- **450A.15.4** Dressing rooms and toilet rooms shall be provided in each establishment and shall be ample in size and readily accessible. They shall be separated from the rooms and compartments in which products are prepared, stored or handled. Where both sexes are employed, separate facilities shall be provided.
- **450A.15.5** Lockers or other facilities shall be provided for employees' wearing apparel and for the storing and changing of clothing. Lockers shall not be located in rooms where processing operations are conducted.
- **450A.15.6** Handwashing facilities serving areas where dressed livestock and poultry carcasses and parts and meat and poultry products are prepared shall be operated by other than hand-operated controls, or shall be continuous flow type that provides flow of water for washing hands.
- **450A.15.7** Catch basins. All catch basins on the premises shall accommodate the provisions of Section 453A.5.

# SECTION 451A [FOR AGR] — COLLECTION CENTERS AND FACILITIES

#### 451A.1 General Construction.

- **451A.1.1** Collection centers shall have facilities for the storage of carcasses and parts of dead animals and the cleaning and sanitizing of vehicles.
- **451A.1.2** Buildings used for the temporary storage of animal carcasses, packinghouse wastes and other products before transportation to a licensed rendering plant shall be of sound construction and shall be of such construction as to prevent the entrance or harboring of vermin.
- **451A.1.3** The floors, walls, ceilings, partitions and doors shall be of such material, construction and finish as to make them readily cleanable.
- **451A.1.4** The area for the cleaning and sanitizing of vehicles shall be provided with adequate live steam or hot water, producing a temperature of at least 180°F (82°C), or other method for sanitizing vehicles.
- **451A.1.5** Facilities shall be provided for the holding and disposal of solid waste resulting from the cleaning operation. Such facilities shall be accessible and easily cleaned and so constructed as to prevent the entrance or harborage of vermin, flies and other insects.

- **451A.1.6** The cleaning and sanitizing of vehicles shall be done on a slab of concrete or other material approved by the Department, which is sloped to drains so as to permit the rapid runoff of water.
- **451A.1.7 Carcasses and packinghouse waste.** The unloading slab shall be of sufficient size to hold all animal carcasses and packinghouse waste material, be constructed of concrete or other material approved by the Department, and sloped to drains so as to permit the rapid runoff of water.
- **451A.2 Floors.** Floors of rooms in which carcasses and packinghouse wastes are received or stored shall be graded to permit runoff of water with no standing water. In new construction and in renovated buildings where floors are to be resurfaced, the pitch shall not be less than  $^{1}/_{4}$  inch per foot (2%) in drains.
- **451A.3 Lavatories and Toilets.** Modern lavatory accommodations, including running hot and cold water, shall be provided except where the Department determines that they are not necessary.

#### SECTION 452A [FOR AGR] — RENDERERS

#### 452A.1 General Construction.

- 452A.1.1 Separation from other businesses. Every licensed rendering establishment shall be separate and distinct from any establishments in which any meat, meat byproducts, poultry or poultry byproducts are handled and from any other business at the discretion of the Department.
- **452A.1.2** The cleaning and sanitizing of vehicles shall be done on a slab of concrete or other material approved by the Department; which is sloped to drains so as to permit the rapid runoff of water.

# SECTION 453A [FOR AGR] — HORSEMEAT AND PET FOOD ESTABLISHMENTS

**453A.1 Scope.** In the event of specific conflict between the provisions of Title 24 and federal regulations, the federal regulations shall take precedence in establishments under federal inspection.

#### 453A.2 General.

**453A.2.1 Facilities for program employees.** Office space, including light and heat shall be provided by official establishments for the inspector and other program employees. The office space shall be conveniently located and adequately ventilated, heated, cooled and provided with adequate desk and file space.

#### 453A.2.2 Final Inspection Places.

- 453A.2.2.1 Final inspection places shall, by size, rail arrangement and other equipment, prevent contamination of edible carcasses or parts by inedible carcasses or parts.
- **453A.2.2.2 Floors.** The floors shall be of such construction as to facilitate the maintenance of sanitary conditions and shall have drainage connections. When the final inspection place is part of a larger floor, it shall be separated from the rest of the floor by a curb, railing or otherwise.
- **453A.2.3 Docks and receiving rooms.** Docks and receiving rooms shall be provided.
- **453A.2.4** The floors, walls, ceilings, partitions, posts, doors and other parts of all structures shall be of such material, construction and finish as will make them readily and thoroughly cleanable. The floors shall be kept watertight.
- 453A.2.5 Rails. Rails should be located, and passageway space provided, so that exposed product does not come in contact with

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- posts, walls and other fixed parts of the building, or with barrels, boxes and other containers trafficked through holding and operation areas.
- **453A.2.6** The rooms and compartments used for edible products shall be separated and distinct from those used for inedible products.
- **453A.2.7** The rooms and compartments in which any product is prepared or handled shall be free from objectionable odor.
- 453A.2.8 Precaution shall be taken to exclude flies, rats, mice and other vermin from official establishments.
- **453A.2.9** The outer premises of horsemeat and pet food establishments shall meet the requirements of Section 450A.1.5.
- **453A.3 Lighting.** There shall be light and ventilation for all rooms and compartments.
- 453A.4 Sanitary Facilities and Accommodations. Sanitary facilities and accommodations shall be furnished by every official establishment.

- **453A.4.1** Dressing rooms and toilets shall be provided in each establishment and shall be ample in size and readily accessible. They shall be separated from the rooms and compartments in which products are prepared, stored or handled. Where both sexes are employed, separate facilities shall be provided.
- 453A.4.2 Lavatories, including running hot and cold water shall be placed in or adjacent to toilet and urinal rooms and at other places in the establishment to assure cleanliness of all persons handling any product.
- **453A.4.3** Facilities shall be provided for cleansing and disinfecting utensils.
- **453A.5** Catch Basins. All catch basins on the premises shall be of such construction and location to ensure they are kept clean and odorless. Catch basins shall not be located in departments where any product is prepared, handled or stored.
- **453A.6** Final Inspection Space. Such spaces shall be equipped with hot water and a lavatory.

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#### Division VII—BOARD OF CORRECTIONS

#### SECTION 460A — MINIMUM STANDARDS FOR JUVENILE FACILITIES

#### 460A.1 Design Criteria for Required Spaces.

- **460A.1.1 Reception/intake admission.** In each juvenile hall, space used for the reception of minors pending admission to juvenile hall shall have the following space and equipment:
  - 1. Weapons lockers as specified in Section 460A.2.9;
- 2. A secure room for the confinement of minors pending admission to juvenile hall as specified in Section 460A.1.2;
  - 3. Access to a shower;
  - 4. A secure vault or storage space for minors' valuables;
  - 5. Telephones accessible to minors; and
  - 6. Access to hot and cold running water for staff use.

#### 460A.1.2 Locked holding room. A locked holding room shall:

- 1. Contain a minimum of 15 square feet (1.4 m<sup>2</sup>) of floor area per minor;
- 2. Provide no less than 45 square feet (4.2 m<sup>2</sup>) of floor space and have a clear ceiling height of 8 feet (2438 mm) or more;
- 3. Contain seating to accommodate all minors as specified in Section 460A.2.8;
- 4. Be equipped with a toilet, wash basin and drinking fountain as specified in Section 460A.2 unless a procedure is in effect to give the minor access to a toilet, wash basin and drinking fountain;
  - 5. Maximize visual supervision of minors by staff; and
  - 6. Have an outward swinging or lateral sliding door.
- 460A.1.3 Natural light. Visual access to natural light shall be provided in locked sleeping rooms, single occupancy sleeping rooms, double occupancy sleeping rooms, dormitories and dayrooms. Natural light may be provided by, but is not limited to, skylights or windows in dayrooms, windows in adjacent exterior exercise areas, and in sleeping rooms and/or dormitories.
- **460A.1.4 Corridors.** Corridors in living units shall be at least 8 feet (2438 mm) wide.

EXCEPTION: Where room doors are staggered, or if rooms are located on only one side, hallways shall be at least 6 feet (1829 mm)

- 460A.1.5 Living unit. A living unit in a juvenile hall shall be a self-contained unit containing locked sleeping rooms, single and double occupancy sleeping rooms, or dormitories, dayroom space, toilet, wash basins, drinking fountains and showers commensurate to the number of minors housed, not to exceed 30 minors. A living unit shall not be divided by any permanent or temporary barrier that hinders direct access, supervision or immediate intervention or other action if needed.
- **460A.1.6** Locked sleeping rooms. Locked sleeping rooms shall be equipped with an individual or combination toilet, wash basin and drinking fountain. Doors to locked sleeping rooms shall swing outward or slide laterally.
- **460A.1.7 Single occupancy sleeping rooms.** Single occupancy sleeping rooms shall provide the following:
  - 1. A minimum of 70 square feet  $(5.9 \text{ m}^2)$  of floor area;
  - 2. A minimum clear ceiling height of 8 feet (2438 mm); and,

- 3. The door into this room shall swing outward or slide laterally and be provided with a view panel, a minimum of 144 square inches (92 903 mm²), constructed of security glazing.
- **460A.1.8 Double occupancy sleeping rooms.** Double occupancy sleeping rooms shall provide the following:
  - 1. A minimum of 100 square feet (9.3  $m^2$ ) of floor area;
- 2. A minimum clear ceiling height of 8 feet (2438 mm) and a minimum width of 7 feet (2134 mm); and,
- 3. The door into this room shall swing outward or slide laterally and be provided with a view panel, a minimum of 144 square inches (92 903 mm<sup>2</sup>), constructed of security glazing.

#### **460A.1.9 Dormitories**. Dormitories shall provide the following:

- 1. A minimum of 50 square feet  $(4.6 \, m^2)$  of floor area per minor with the minimum size of a dormitory being 200 square feet  $(18.6 \, m^2)$  of floor area and a minimum 8-foot  $(2438 \, mm)$  clear ceiling height;
  - 2. Designed for no fewer than four minors;
- 3. Dormitories in juvenile halls shall be designed for no more than 30 minors; and,
  - 4. Camps shall conform to numbers 1 and 2.
- **460A.1.10 Dayrooms.** Dayrooms in juvenile halls shall contain 35 square feet (3.3 m²) of floor area per minor. Dayrooms in camps and special-purpose juvenile halls shall contain 30 square feet (2.8 m²) of floor area per minor. Access must be provided to toilets, wash basins, drinking fountains and showers as specified in Section 460A.2.
- **460A.1.11** Physical activity and recreation areas. Indoor/out-door physical activity and recreation areas shall be designed as follows:
- 1. Minimum Indoor/
  Facility Capacity
  40 or less
  41 to 274
  225 square feet per minor up to
  61,650 square feet, plus 145 square
  feet for each minor beyond 274 (up
  to a maximum of 87,120 square feet)
  - 1.1 At least one quarter of the dedicated indoor/outdoor space shall be a paved or like surface.
  - 1.2 The required recreation area shall contain no single dimension less than 40 feet.
- 2. A portion of the dedicated space for physical activity and recreation shall be out-of-doors and be of sufficient size and equipped in such a manner to allow compliance with Title 15, Section 1371, which requires at least one hour per day of outdoor activity for each detained minor.
- 3. Lighting of outdoor recreation areas shall be provided to allow for evening activities and to provide security.
- 4. Access must be provided to a toilet, wash basin and drinking fountain as specified in Section 460A.2.
- **460A.1.12** Academic classrooms. There shall be dedicated academic classroom space for every juvenile in every facility. The primary purpose for the academic classroom shall be for education. Each academic classroom shall contain a minimum of 160 square feet  $(14.9 \text{ m}^2)$  of floor space for the teachers' desk and work area and a minimum of 28 square feet  $(2.6 \text{ m}^2)$  of floor space per minor. A communication system shall be provided in each classroom to

# Chapter 9 FIRE-PROTECTION SYSTEMS

For qualified historical buildings or properties, see Chapter 34, Division II.

#### SECTION 901 — SCOPE

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This chapter applies to the design and installation of fire-extinguishing systems, smoke-control systems and smoke and heat venting systems.

For requirements on fire alarm systems, see the following:

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		SECTION	SUBJECT
		303.9	Group A, Divisions 1 and 2 Occupancies
		305.2.3, 305.9	Group E Occupancies
		307.9	Group H Occupancies
		308.9	Group I Occupancies
		310.10	Group R Occupancies
L	C [For	SFM]	
Ĺ	Ĉ	310.14.12	Existing Apartment Houses
		403.5	High-rise buildings
		408.5	Amusement buildings
		307.11.5.5	Group H, Division 6 Occupancies

For smoke detectors in Group R Occupancies, see Section 310.9.

#### **SECTION 902 — STANDARDS OF QUALITY**

Fire-extinguishing systems, including automatic sprinkler systems, Class I, Class II and Class III standpipe systems, special automatic extinguishing systems, basement pipe inlets, smokecontrol systems, and smoke and heat vents shall be approved and shall be subject to such periodic tests as may be required.

The standards listed below labeled a "UBC standard" are also listed in Chapter 35, Part II, and are part of this code. The other standards listed below are recognized standards (see Sections 3503 and 3504).

#### 1. Fire-extinguishing system.

- 1.1 UBC Standard 9-1, Installation of Sprinkler Systems
- 1.2 UBC Standard 9-3, Installation of Sprinkler Systems in Group R Occupancies Four Stories or Less

#### 2. Standpipe systems.

UBC Standard 9-2, Standpipe Systems

#### 3. Smoke control.

- 3.1 UBC Standard 7-2, Fire Tests of Door Assemblies
- 3.2 UL 555, Fire Dampers
- 3.3 UL 555C, Ceiling Dampers
- 3.4 UL 555S, Leakage Rated Dampers for Use in Smoke Control Systems
- 3.5 UL 33, Heat Response Links for Fire Protection Service
- 3.6 UL 353, Limit Controls

#### 4. Smoke and heat vents.

UBC Standard 15-7, Automatic Smoke and Heat Vents

#### **SECTION 903 — DEFINITIONS**

For the purpose of this chapter, certain terms are defined as follows: **AUTOMATIC FIRE-EXTINGUISHING SYSTEM** is an approved system of devices and equipment that automatically detects a fire and discharges an approved fire-extinguishing agent onto or in the area of a fire.

**FIRE DEPARTMENT INLET CONNECTION** is a connection through which the fire department can pump water into a standpipe system or sprinkler system.

**PRESSURIZATION** is the creation and maintenance of pressure levels in zones of a building, including elevator shafts and stairwells that are higher than the pressure level at the smoke source, such pressure levels being produced by positive pressures of a supply of uncontaminated air, by exhausting air and smoke at the smoke source, or by a combination of these methods.

**PRESSURIZED STAIRWAY ENCLOSURE** is a type of smoke-control system in which stairway enclosures are mechanically pressurized to minimize smoke contamination of them during a fire incident.

**SMOKE** is the airborne solid and liquid particulates and gases evolved when a material undergoes pyrolysis or combustion, including the quantity of air that is entrained or otherwise mixed into the mass.

**SMOKE BARRIER** is a continuous membrane, either vertical or horizontal, such as a wall, floor or ceiling assembly that is designed and constructed to restrict the movement of smoke.

**SMOKE-CONTROL MODE** is a predefined operational configuration of a system or device for the purpose of smoke control.

**SMOKE-CONTROL SYSTEM, MECHANICAL,** is an engineered system that uses mechanical fans to produce pressure differences across smoke barriers or establish airflows to limit and direct smoke movement.

**SMOKE-CONTROL SYSTEM, PASSIVE,** is a system of smoke barriers arranged to limit the migration of smoke.

**SMOKE-CONTROL ZONE** is a space within a building enclosed by smoke barriers.

**SMOKE DAMPER** is a device that meets the requirements of approved recognized standards, and is designed to resist the passage of air or smoke. A combination fire and smoke damper shall meet the requirements of approved recognized standards. See Chapter 35, Part IV.

**SMOKE EXHAUST SYSTEM** is a mechanical or gravity system intended to move smoke from the smoke zone to the exterior of the building, including smoke removal, purging and venting systems, as well as the function of exhaust fans utilized to reduce the pressure in a smoke zone.

SPRINKLER ALARM [For SFM, SL] is a local alarm unit assembly or apparatus approved for the service and so constructed and installed that any flow of water from a sprinkler system equal to or greater than that from a single automatic sprinkler will result in an audible alarm signal on the premises.

SPRINKLER SYSTEM, [For SFM, SL] for fire-protection purposes, is an integrated system of underground and overhead piping designed in accordance with fire-protection engineering standards. The installation includes a water supply, such as a gravity tank, fire pump, reservoir or pressure tank and/or connection by underground piping to a city main.

The portion of the sprinkler system above ground is a network of specially sized or hydraulically designed piping installed in a

building, structure or area, generally overhead, and to which sprinklers are connected in a systematic pattern. The system includes a controlling valve and a device for actuating alarm when the system is in operation. The system is usually activated by heat from a fire and discharges water over the fire area.

STACK EFFECT is the vertical airflow within buildings caused by temperature differences.

**STANDPIPE SYSTEM** is a wet or dry system of piping, valves, outlets and related equipment designed to provide water at specified pressures and installed exclusively for the fighting of fires, including the following:

Class I [For SFM, SL] is a dry standpipe system without a directly connected water supply and equipped with  $2^{1}/_{2}$ -inch (63.5 mm) outlets for use by the fire department or trained person-

Class II [For SFM, SL] is a wet standpipe system directly connected to a water supply and equipped with  $1^{1}/_{2}$ -inch (38.1 mm) outlets and hose intended for use by the building occupants.

Class III [For SFM, SL] is a combination standpipe system directly connected to a water supply and equipped with both  $1^{1}/2$ -inch (38.1 mm) outlets for use by the building occupants and  $2^{1}/_{2}$ -inch (63.5 mm) outlets for use by the fire department or trained personnel, or  $2^{1}/_{2}$ -inch (63.5 mm) and  $1^{1}/_{2}$ -inch (38.1 mm) outlets when a  $1^{1}/_{2}$ -inch (38.1 mm) hose is required. Hose connections for Class III systems may be made through  $2^{1}/_{2}$ -inch (63.5 mm) hose valves with easily removable  $2^{1}/_{2}$ -inch by  $1^{1}/_{2}$ -inch (63.5 mm by 38.1 mm) reducers.

EXCEPTION: Outlets for use by the fire authorities shall be of the size determined by the fire authority having jurisdiction.

**TENABLE ENVIRONMENT** is an environment in which the quantity and location of smoke is limited or otherwise restricted to allow for ready evacuation through the space.

ZONED SMOKE CONTROL is a smoke-control system utilizing pressure differences between adjacent smoke-control zones.

#### SECTION 904 — FIRE-EXTINGUISHING SYSTEMS

#### 904.1 Installation Requirements.

**904.1.1 General.** Fire-extinguishing systems required in this code shall be installed in accordance with the requirements of this

Fire hose threads used in connection with fire-extinguishing systems shall be national standard hose thread or as approved by the fire department.

The location of fire department hose connections shall be approved by the fire department.

In buildings used for high-piled combustible storage, fire pro- $\prod_{L=0}^{L=0}$  tection shall be in accordance with the *[for SFM] California* Fire Code.

904.1.2 Standards. Fire-extinguishing systems shall comply with UBC Standards 9-1 and 9-2. [For SFM] Fire-extinguishing systems shall comply with the applicable standards in Chapter 35 and Article 91 of the California Fire Code.

> EXCEPTIONS: 1. Automatic fire-extinguishing systems not covered by UBC Standard 9-1 or 9-2 shall be approved and installed in accordance with approved standards.

- 2. Automatic sprinkler systems may be connected to the domestic water-supply main when approved by the building official, provided the domestic water supply is of adequate pressure, capacity and sizing for the combined domestic and sprinkler requirements. In such case, the sprinkler system connection shall be made between the public water main or meter and the building shutoff valve, and there shall not be intervening valves or connections. The fire department connection may be omitted when approved by the fire department.
- 3. Automatic sprinkler systems in Group R Occupancies four stories or less may be in accordance with UBC Standard 9-3.
- 4. [For SFM 904.1.2.1] Group I Occupancies housed in existing single-family dwellings may utilize the following deviations from NFPA 13, provided the floorarea and height of any single- or multiple-story building does not exceed those allowed by Table 5-B, and further provided the system is hydraulically calculated in accordance with light hazard requirements without allowance for hose.

Water-supply mains may be reduced to 2 inches (51 mm) provided the system has provisions for a minimum 30-minute water supply at the required fire flow, but in no case shall such flow be less than 150 gallons per minute (9.5 L/s). The 2-inch (51 mm) mains shall not be used for any purpose other than fire-extinguishing systems.

- 4.1 [For SFM] A single source of water of adequate capacity may be used. Where public mains are not available, pressure tanks, storage tanks, swimming pools constructed of concrete, cementitious material or equivalent construction, private wells and adjacent natural water bodies shall be acceptable. Such sources shall be maintained in accordance with the requirements of the enforcing agency.
- 4.2 [For SFM] Electric-driven fire pumps installed in occupancies located in areas served by a light or power service subject to frequent interruption shall have an approved secondary source for supply of main operating power.
- [For SFM] Existing pumps of any type shall be acceptable if found adequate for the systems' needs.
- [For SFM] Electrical supervision of a fire pump need not be provided.
- 4.5 [For SFM] Fire department connections are not required.
- [For SFM] Sprinklers may be omitted from all roof overhangs 4 feet (1219 mm) or less in width, provided the area under any such overhang is not used for storage or vehicular
- [For SFM] Unless otherwise required by this code, sprinklers may be omitted in spaces under ground floors when the space does not exceed 30 inches (762 mm) in height and the use and design of the space conforms to the following:

The space is not accessible for or used for storage purposes or entrance of unauthorized persons and is protected against the accumulation of wind-blown debris,

The space contains no equipment such as steam pipes, shafting or conveyors;

The floor over the space is constructed of solid or tightfitting materials void of any unprotected openings;

Nonflammable liquids are processed, handled or stored on the floor above.

- 4.8 [For SFM] Electric wiring in spaces under ground floors where sprinklers are omitted shall be enclosed in an approved metallic raceway unless serving circuits of 30 volts or less.
- [For SFM] Sprinklers may be omitted in closets 2 feet (610 mm) or less in depth and 6 feet (1829 mm) or less in length.
- 4.10 [For SFM] The fire alarm and fire-extinguishing system, including pumps, shall be tested at monthly intervals in a manner acceptable to the fire authority having jurisdiction.
- 4.11 [ForSFM] The installation of automatic fire-extinguishing systems installed under this exception shall not be used to permit area increases, increas

904.1.3 Modifications. When residential sprinkler systems as set forth in UBC Standard 9-3 are provided, exceptions to, or reductions in, code requirements based on the installation of an automatic fire-extinguishing system are not allowed.

#### 904.2 Automatic Fire-extinguishing Systems.

**904.2.1** Where required. An automatic fire-extinguishing system shall be installed in the occupancies and locations as set forth in this section

For provisions on special hazards and hazardous materials, see the Fire Code.

- **904.2.2** All occupancies except Group R, Division 3 and Group U Occupancies. Except for Group R, Division 3 and Group U Occupancies, an automatic sprinkler system shall be installed:
- 1. In every story or basement of all buildings when the floor area exceeds 1,500 square feet (139.4 m²) and there is not provided at least 20 square feet (1.86 m²) of opening entirely above the adjoining ground level in each 50 lineal feet (15 240 mm) or fraction thereof of exterior wall in the story or basement on at least one side of the building. Openings shall have a minimum dimension of not less than 30 inches (762 mm). Such openings shall be accessible to the fire department from the exterior and shall not be obstructed in a manner that firefighting or rescue cannot be accomplished from the exterior.

When openings in a story are provided on only one side and the opposite wall of such story is more than 75 feet (22 860 mm) from such openings, the story shall be provided with an approved automatic sprinkler system, or openings as specified above shall be provided on at least two sides of an exterior wall of the story.

If any portion of a basement is located more than 75 feet (22 860 mm) from openings required in this section, the basement shall be provided with an approved automatic sprinkler system.

- 2. At the top of rubbish and linen chutes and in their terminal rooms. Chutes extending through three or more floors shall have additional sprinkler heads installed within such chutes at alternate floors. Sprinkler heads shall be accessible for servicing.
  - 3. In rooms where nitrate film is stored or handled.
- 4. In protected combustible fiber storage vaults as defined in the Fire Code.
- 5. Throughout all buildings with a floor level with an occupant load of 30 or more that is located 55 feet (16 764 mm) or more above the lowest level of fire department vehicle access.

**EXCEPTIONS:** 1. Airport control towers.

- 2. Open parking structures.
- 3. Group F, Division 2 Occupancies.

#### 904.2.3 Group A Occupancies.

- 904.2.3.1 Drinking establishments. An automatic sprinkler system shall be installed in rooms used by the occupants for the consumption of alcoholic beverages and unseparated accessory uses where the total area of such unseparated rooms and assembly uses exceeds 5,000 square feet (465 m<sup>2</sup>). For uses to be considered as separated, the separation shall not be less than as required for a one-hour occupancy separation. The area of other uses shall be included unless separated by at least a one-hour occupancy separation.
- **904.2.3.2 Basements.** An automatic sprinkler system shall be installed in basements classified as a Group A Occupancy when the basement is larger than 1,500 square feet (139.4 m<sup>2</sup>) in floor area.

- **904.2.3.3 Exhibition and display rooms.** An automatic sprinkler system shall be installed in Group A Occupancies that have more than 12,000 square feet (1115 m<sup>2</sup>) of floor area that can be used for exhibition or display purposes.
- **904.2.3.4 Stairs.** An automatic sprinkler system shall be installed in enclosed usable space below or over a stairway in Group A, Divisions 2, 2.1, 3 and 4 Occupancies. See Section 1005.3.3.6.
- **904.2.3.5 Multitheater complexes.** An automatic sprinkler system shall be installed in every building containing a multitheater complex.
- **904.2.3.6** Amusement buildings. An automatic sprinkler system shall be installed in all amusement buildings. The main waterflow switch shall be electrically supervised. The sprinkler main cutoff valve shall be supervised. When the amusement building is temporary, the sprinkler water-supply system may be of an approved temporary type.

**EXCEPTION:** An automatic sprinkler system need not be provided when the floor area of a temporary amusement building is less than 1,000 square feet (92.9 m<sup>2</sup>) and the exit travel distance from any point is less than 50 feet (15 240 mm).

**904.2.3.7 Stages.** All stages shall be provided with an automatic sprinkler system. Such sprinklers shall be provided throughout the stage and in dressing rooms, workshops, storerooms and other accessory spaces contiguous to such stages.

**EXCEPTIONS:** 1. Sprinklers are not required for stages 1,000 square feet (92.9 m<sup>2</sup>) or less in area and 50 feet (15 240 mm) or less in height where curtains, scenery or other combustible hangings are not retractable vertically. Combustible hangings shall be limited to a single main curtain, borders, legs and a single backdrop.

- 2. Under stage areas less than 4 feet (1219 mm) in clear height used exclusively for chair or table storage and lined on the inside with  $\frac{5}{8}$ -inch (16 mm) Type X gypsum wallboard or an approved equal.
- **904.2.3.8** Smoke-protected assembly seating. All areas enclosed with walls and ceilings in buildings or structures containing smoke-protected assembly seating shall be protected with an approved automatic sprinkler system.

**EXCEPTION:** Press boxes and storage facilities less than 1,000 square feet  $(92.9 \text{ m}^2)$  in area and in conjunction with outdoor seating facilities where all means of egress in the seating area are essentially open to the outside.

#### 904.2.4 Group E Occupancies.

- **904.2.4.1 General.** An automatic fire sprinkler system shall be installed throughout all buildings containing a Group E, Division 1 Occupancy.
  - **EXCEPTIONS:** 1. When each room used for instruction has at least one exterior exit door at ground level and when rooms used for assembly purposes have at least one half of the required exits directly to the exterior ground level, a sprinkler system need not be provided.
  - 2. When area separation walls, or occupancy separations having a fire-resistive rating of not less than two hours subdivide the building into separate compartments such that each compartment contains an aggregate floor area not greater than 20,000 square feet (1858 m²), an automatic sprinkler system need not be provided.
- **904.2.4.2 Basements.** An automatic sprinkler system shall be installed in basements classified as Group E, Division 1 Occupancies.
- **904.2.4.3 Stairs.** An automatic sprinkler system shall be installed in enclosed usable space below or over a stairway in Group E, Division 1 Occupancies. See Section 1005.3.3.6.
- 904.2.4.4 [For SFM] Special provisions. School buildings or portions of buildings for which review and approval is required under Section 17280 of the Education Code shall comply with State Appendixes III-AA and III-BB of the California Fire Code.

#### 904.2.4.4.1 [For SFM] Public Schools—Automatic Sprinkler System Requirements

904.2.4.4.1.1 [For SFM] New Campus. A State Fire Marshal approved automatic sprinkler system shall be provided in all new public school campus buildings as defined in Section 215 and maintained in accordance with the California Fire Code, Article

904.2.4.4.1.2 [For SFM] Permanent Portable Buildings. A portable building that is used to serve or house students and is certified as a permanent building on a new public school campus by the public school administration shall comply with the requirements of Section 904.2.4.4.1.1.

904.2.4.4.1.3 [For SFM] Fire-Resistive Substitution for New Campus. A new public school campus as defined in Section 215 shall be entitled to include in the design and construction documents all of the applicable fire-resistive construction substitutions as permitted in Section 508.

#### 904.2.5 Group F Occupancies.

904.2.5.1 Woodworking occupancies. An automatic fire sprinkler system shall be installed in Group F woodworking occupancies over 2,500 square feet (232.3 m<sup>2</sup>) in area that use equipment, machinery or appliances that generate finely divided combustible waste or that use finely divided combustible materials.

#### 904.2.6 Group H Occupancies.

904.2.6.1 General. An automatic fire-extinguishing system shall be installed in Group H, Divisions 1, 2, 3 and 7 Occupancies.

904.2.6.2 Group H, Division 4 Occupancies. An automatic fire-extinguishing system shall be installed in Group H, Division 4 Occupancies having a floor area of more than 3,000 square feet  $(279 \text{ m}^2)$ .

904.2.6.3 Group H, Division 6 Occupancies. An automatic fire-extinguishing system shall be installed throughout buildings containing Group H, Division 6 Occupancies. The design of the sprinkler system shall not be less than that required under UBC Standard 9-1 for the occupancy hazard classifications as follows:

LOCATION	OCCUPANCY HAZARD CLASSIFICATION
Fabrication areas	Ordinary Hazard Group 2
Service corridors	Ordinary Hazard Group 2
Storage rooms without dispensing	Ordinary Hazard Group 2
Storage rooms with dispensing	Extra Hazard Group 2
Corridors	Ordinary Hazard Group 2 <sup>1</sup>

<sup>1</sup>When the design area of the sprinkler system consists of a corridor protected by one row of sprinklers, the maximum number of sprinklers that needs to be calculated is 13.

904.2.6.4 [For SFM] Group H, Division 8 Occupancies. An automatic sprinkler system shall be installed throughout buildings housing Group H, Division 8 Occupancies. Sprinkler system design for research laboratories and similar areas of a Division 8 Occupancy shall not be less than that required for Ordinary Hazard Group 3 with a design area of not less than 3,000 square feet  $(279 \text{ m}^2)$ .

In mixed occupancies, portions of floors or buildings not classified as Group H, Division 8 Occupancies shall be provided with

904.2.7 Group I Occupancies. An automatic sprinkler system shall be installed in Group I Occupancies [for SFM] unless otherwise exempted in Chapter 3 of this code. In Group I, Division 1.1 and Group I, Division 2 Occupancies, approved quick-response or residential sprinklers shall be installed throughout patient sleeping areas.

sprinkler protection designed of not less than that required for

Ordinary Hazard Group 1 with a design area of not less than 3,000

square feet  $(279 \text{ m}^2)$ .

EXCEPTION: In jails, prisons and reformatories, the piping system may be dry, provided a manually operated valve is installed at a continuously monitored location. Opening of the valve will cause the piping system to be charged. Sprinkler heads in such systems shall be equipped with fusible elements or the system shall be designed as required for deluge systems in UBC Standard 9-1.

904.2.8 Group M Occupancies. An automatic sprinkler system shall be installed in rooms classed as Group M Occupancies where the floor area exceeds 12,000 square feet (1115 m<sup>2</sup>) on any floor or 24,000 square feet (2230 m<sup>2</sup>) on all floors or in Group M Occupancies more than three stories in height. The area of mezzanines shall be included in determining the areas where sprinklers are required.

904.2.9 Group R, Division 1 Occupancies. An automatic sprinkler system shall be installed throughout every apartment house three or more stories in height or containing 5 or more dwelling units, every congregate residence three or more stories in height or having an occupant load of 11 or more, and every hotel three or more stories in height or containing 6 or more guest rooms. Residential or quick-response standard sprinklers shall be used in the dwelling units and guest room portions of the building.

[For SFM] The requirements of this subsection shall not mandate the retroactive installation of an automatic sprinkler system to an existing R1 Occupancy.

904.2.10 [For SFM] Group R, Division 2 Occupancies. An automatic sprinkler system shall be installed in Group R, Division 2 Occupancies.

EXCEPTIONS: 1. Group R, Divisions 2.1.1 and 2.2.1 Occupancies not housing bedridden clients and not exceeding two stories in height or not housing bedridden clients and not housing nonambulatory clients above the first story.

- 2. Group R, Divisions 2.1.1 and 2.2.1 Occupancies housing only one bedridden client and complying with Section 415A.
- 3. In Group R, Division 2 Occupancies, pursuant to Health and Safety Code Section 13113, Division 2.2 Occupancies housing ambulatory children only, none of whom are mentally ill or mentally retarded, and the buildings or portions thereof in which such children are housed are not more than two stories in height, and buildings or portions thereof housing such children have an automatic fire alarm system activated by approved smoke detectors.
- 4. In Group R, Division 2 Occupancies, pursuant to Health and Safety Code Section 13143.6, Division 2 Occupancies which house ambulatory persons only, none of whom is a child (under the age of 18 years), or who is elderly (65 years of age or over).

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904.2.10.1 [For SFM] Group R, Divisions 2.1.1, 2.2.1 and 2.3.1 Occupancies. In Group R, Divisions 2.1.1, 2.2.1 and 2.3.1 Occupancies, a NFPA 13R or 13D system may be used within the scope of those standards. Section 2-6 of NFPA 13R or Section 4-6 of 13D shall not apply unless approved by the authority having jurisdiction. Residential or quick response standard sprinklers shall be used in all sleeping rooms.

[For SFM] In Group I, Division 1.1 Occupancies, any change in elevation of the floor in a hallway, corridor, exit passageway or exterior exit balcony serving nonambulatory persons shall be by  $\stackrel{L}{\stackrel{A}{\stackrel{}{\stackrel{}}{\stackrel{}}{\stackrel{}}}}$  means of a ramp.

**EXCEPTIONS:** 1. In Group R, Division 3 Occupancies and within individual dwelling units of Group R, Division 1 Occupancies.

2. Along aisles adjoining seating areas.

**1003.2.7 Elevators or escalators.** Elevators or escalators shall not be used as a required means of egress component.

#### 1003.2.8 Means of egress identification.

1003.2.8.1 [For DSA/AC & SFM] Visual exit signs. For the purposes of Section 1003.2.8.1, the term "exit sign" shall mean those required signs that visually indicate the path of exit travel within the means of egress system.

1003.2.8.2 Where required. The path of exit travel to and within exits in a building shall be identified by exit signs conforming to the requirements of Section 1003.2.8. Exit signs shall be readily visible from any direction of approach. Exit signs shall be located as necessary to clearly indicate the direction of egress travel. No point shall be more than 100 feet (30 480 mm) from the nearest visible sign.

EXCEPTIONS: 1. Main exterior exit doors that obviously and clearly are identifiable as exit doors need not have exit signs when approved by the building official.

- 2. Rooms or areas that require only one exit or exit access.
- 3. In Group R, Division 3 Occupancies and within individual units of Group R, Division 1 Occupancies.
- 4. Exits or exit access from rooms or areas with an occupant load of less than 50 where located within a Group I, Division 1.1, 1.2 or 2 Occupancy or a Group E, Division 3 day-care occupancy.
- **1003.2.8.3** Graphics. The color and design of lettering, arrows and other symbols on exit signs shall be in high contrast with their background. Exit signs shall have the word "EXIT" on the sign in block capital letters not less than 6 inches (152 mm) in height with a stroke of not less than <sup>3</sup>/<sub>4</sub> inch (19 mm). The word "EXIT" shall have letters having a width of not less than 2 inches (51 mm) except for the letter "I" and a minimum spacing between letters of not less than  $\frac{3}{8}$  inch (9.5 mm). Signs with lettering larger than the minimum dimensions established herein shall have the letter width, stroke and spacing in proportion to their height.
- 1003.2.8.4 Illumination. Exit signs shall be internally or externally illuminated. When the face of an exit sign is illuminated from an external source, it shall have an intensity of not less than 5 footcandles (54 lx) from either of two electric lamps. Internally illuminated signs shall provide equivalent luminance and be listed for the purpose.

EXCEPTIONS: 1. Approved self-luminous signs that provide evenly illuminated letters that have a minimum luminance of 0.06 foot lambert (0.21 cd/m<sup>2</sup>).

- 2. [For SFM] Approved internally illuminated exit signs which use light-emitting diodes or electroluminescent lamps are not required to have two electric lamps.
- 1003.2.8.5 Power source. All exit signs shall be illuminated at all times. To ensure continued illumination for a duration of not less than  $1^{1}/_{2}$  hours in case of primary power loss, the exit signs shall also be connected to an emergency electrical system provided from storage batteries, unit equipment or an on-site generator set, and the system shall be installed in accordance with the Electrical Code. For high-rise buildings, see Section 403.

EXCEPTIONS: 1. Approved self-luminous signs that provide continuous illumination independent of an external power source.

2. [For SFM] The power supply for internally illuminated exit signs and exit path marking, which do not contain electric lamps, shall normally be provided by the premises' wiring system. In the event of its

failure, power shall be automatically provided from storage batteries or an on-site generator set and the system shall be installed in accordance with the California Electrical Code.

1003.2.8.6 [For DSA/AC & SFM] Tactile exit signage. For the purposes of Section 1003.2.8.6, the term "tactile exit signs" shall mean those required signs that comply with Section 1117B.5.1

1003.2.8.6.1 [For DSA/AC & SFM] Where required. Tactile exit signs shall be required at the following locations:

- 1. Each grade-level exterior exit door shall be identified by a tactile exit with the word, "EXIT."
- 2. Each exit door that leads directly to a grade-level exterior exit by means of a stairway or ramp shall be identified by a tactile exit sign with the following words as appropriate:
  - A. "EXIT STAIR DOWN"
  - B. "EXIT RAMP DOWN"
  - C. "EXIT STAIR UP"
  - D. "EXIT RAMP UP"
- 3. Each exit door that leads directly to a grade-level exterior exit by means of an exit enclosure or an exit passageway shall be identified by a tactile exit sign with the words, "EXIT ROUTE."
- 4. Each exit access door from an interior room or area to a corridor or hallway that is required to have a visual exit sign, shall be identified by a tactile exit sign with the words, "EXIT ROUTE."
- 5. Each exit door through a horizontal exit shall be identified by a sign with the words, "TO EXIT."

#### 1003.2.9 Means of egress illumination.

**1003.2.9.1** General. Any time a building [for SFM] or portion of a building is occupied, the means of egress serving the occupied portion shall be illuminated at an intensity of not less than 1 footcandle (10.76 lx) at the floor level.

**EXCEPTIONS:** 1. In Group R, Divisions 2.1.1, 2.2.1, 2.3.1, 6.1.1, 6.2.1 and 3 Occupancies and within individual units of Group R, Division 1 Occupancies.

- 2. In auditoriums, theaters, concert or opera halls, and similar assembly uses, the illumination at the floor level may be reduced during performances to not less than 0.2 footcandle (2.15 lx), provided that the required illumination be automatically restored upon activation of a premise's fire alarm system when such system is provided.
- 3. [For SFM] Sleeping rooms in Group I Occupancies, and sleeping rooms in Group R, Divisions 2.1, 2.2, 2.3, 6.1 and 6.2 Occupancies.

**1003.2.9.2 Power supply.** The power supply for means of egress illumination shall normally be provided by the premise's electrical supply. In the event of its failure, illumination shall be automatically provided from an emergency system for Group I, Divisions 1.1 and 1.2. [For SFM] Occupancies in rooms or areas requiring two or more exits or exit access doorways, or a combination thereof and Group R, Divisions 2.1 and 2.2 Occupancies and for all other occupancies where the means of egress system serves an occupant load of 100 or more. Such emergency systems shall be installed in accordance with the Electrical Code.

For high-rise buildings, see Section 403.

**1003.2.10** Building accessibility. In addition to the requirements of this chapter, means of egress, which provide access to, or egress from, buildings for persons with disabilities, shall also comply with the requirements of Chapter 11.

EXCEPTIONS: 1. [For HCD 1/AC, DSA/AC] For housing accessibility, see Chapter 11A.

- 2. [For DSA/AC] For accessibility to public accommodations, commercial buildings and publicly funded housing, see Chapter 11B.
- **1003.3 Means of egress components.** Doors, gates, stairways and ramps that are incorporated into the design of any portion of

the means of egress system shall comply with the requirements of this section. These means of egress components may be selectively included in the exit access, the exit or the exit discharge portions of the means of egress system.

#### 1003.3.1 Doors.

**1003.3.1.1 General.** For the purposes of Section 1003.3.1, the term "exit door" shall mean all of those doors or doorways along the path of exit travel anywhere in a means of egress system.

Exit doors serving the means of egress system shall comply with the requirements of Section 1003.3.1. Where additional doors are installed for egress purposes, they shall conform to all requirements of this section. Buildings or structures used for human occupancy shall have at least one exterior exit door that meets the requirements of Section 1003.3.1.3.

Exit doors shall be readily distinguishable from the adjacent construction and shall be easily recognizable as exit doors. Mirrors or similar reflecting materials shall not be used on exit doors, and exit doors shall not be concealed by curtains, drapes, decorations and similar materials.

[For HCD 1 & HCD 2] Egress from door. Every exit door required by this section shall give immediate access to an approved means of egress from the building.

1003.3.1.2 Special doors. Revolving, sliding and overhead doors serving an occupant load of 10 or more shall not be used as required exit doors. [For SFM] Manually operated horizontal sliding doors may be used when serving an occupant load of 10 or less. Large family day-care homes may use manually operated horizontal sliding doors when serving an occupant load of 14 or less.

**EXCEPTIONS:** 1. Approved revolving doors having leaves that will collapse under opposing pressures may be used, provided

- 1.1 Such doors have a minimum width of 6 feet 6 inches (1981 mm).
- 1.2 At least one conforming exit door is located adjacent to each revolving door.
- 1.3 The revolving door shall not be considered to provide any required width when computing means of egress width in accordance with Section 1003.2.3.
- 2. Horizontal sliding doors complying with UBC Standard 7-8 may be used
  - 2.1 In elevator lobby separations.
  - 2.2 In other than Groups A and H Occupancies, where smoke barriers are required.
  - In other than Group H Occupancies, where serving an occupant load of less than 50.

Power-operated doors complying with UBC Standard 10-1 may be used for egress purposes. Such doors, where swinging, shall have two guide rails installed on the swing side projecting out from the face of the door jambs for a distance not less than the widest door leaf. Guide rails shall not be less than 30 inches (762 mm) in height with solid or mesh panels to prevent penetration into door swing and shall be capable of resisting a horizontal load at top of rail of not less than 50 pounds per lineal foot (730 N/m).

**EXCEPTIONS:** 1. Walls or other types of separators may be used in lieu of the above guide rail, provided all the criteria are met.

- 2. Guide rails in industrial or commercial occupancies not accessible to the public may comply with the exception to Section 509.3.
- 3. Doors swinging toward flow of traffic shall not be permitted unless actuating devices start to function at least 8 feet 11 inches (2718 mm) beyond the door in an open position and guide rails extend 6 feet 5 inches (1956 mm) beyond the door in an open position.

Clearances for guide rails shall be as follows:

1. Six inches (152 mm) maximum between rails and leading edge of door at the closest point in its arc of travel.

- 2. Six inches (152 mm) maximum between rails and the door in an open position.
- 3. Two inches (51 mm) minimum between rail at hinge side and door in an open position.
- 4. Two inches (51 mm) maximum between freestanding rails and jamb or other adjacent surface.

1003.3.1.2.1 [For HCD 2] Doors in folding partitions. When permanently mounted folding or movable partitions are used to divide a room into smaller spaces, exits from these enclosures shall be provided as required under Section 1003.

1003.3.1.3 Width and height. Every required exit doorway serving an occupant load of 10 or more shall be of a size to permit the installation of a door not less than 3 feet (914 mm) in nominal width and not less than 6 feet 8 inches (2032 mm) in nominal height. Where installed, exit doors shall be capable of opening such that the clear width of the exit is not less than 32 inches (813 mm). In computing the exit width as required by Section 1003.2.3, the net dimension of the doorway shall be used.

[ForDSA/AC] NOTE: For accessibility requirements for width and height of doors in housing accessibility, see Chapter 11A, Sections 1126A. 1 and 1132A. 2.1, and for public buildings, public accommodations, commercial buildings and publicly funded housing, see Chapter 11B, Section 1133B.2.2.

**1003.3.1.4** Door leaf width. A single leaf of an exit door serving an occupant load of 10 or more shall not exceed 4 feet (1219 mm) in width.

1003.3.1.5 Swing and opening force. Exit doors serving an occupant load of 10 or more shall be of the pivoted, balanced or side-hinged swinging type. Exit doors shall swing in the direction of the path of exit travel where the area served has an occupant load of 50 or more. The door shall swing to the fully open position when an opening force not to exceed 30 pounds (133.45 N) is applied to the latch side. For other door opening forces, see Section 905.3 and Chapter 11. See Section 3207 for doors swinging over public property.

**EXCEPTIONS:** 1. Group I, Division 3 Occupancy used as a place of detention.

- 2. Doors within or serving an individual dwelling unit.
- 3. Special doors conforming to Section 1003.3.1.2.

Double-acting doors shall not be used as exits where any of the following conditions exist:

- 1. The occupant load served by the door is 100 or more.
- 2. The door is part of a fire assembly.
- 3. The door is part of a smoke- and draft-control assembly.
- 4. Panic hardware is required or provided on the door.

A double-acting door shall be provided with a view panel of not less than 200 square inches (0.129 m<sup>2</sup>).

1003.3.1.6 Floor level at doors. Regardless of the occupant load served, there shall be a floor or a landing on each side of a door. Where access for persons with disabilities is required by Chapter 11A, the floor or landing shall not be more than  $\frac{1}{2}$  inch (12.7 mm) lower than the threshold of the doorway. Where such access is not required, the threshold shall not exceed 1 inch (25 mm). Landings shall be level except that exterior landings may have a slope not to exceed  $\frac{1}{4}$  unit vertical in 12 units horizontal (2% slope).

**EXCEPTIONS:** 1. In Group R, Division 3, and Group U Occupancies and within individual units of Group R, Division 1 Occupancies:

- 1.1 A door may open at the top step of an interiorflight of stairs, provided the door does not swing over the top step.
- 1.2 A door may open at a landing that is not more than 8 inches (203 mm) lower than the floor level, provided the door does not swing over the landing.
- 1.3 Screen doors and storm doors may swing over stairs, steps or landings.

C L L C L L A L L C L L A L L C L A L L C L A L L C L A L L C L A L L C L A L L C A L C A L C A L C A L C A L L C A L

2. Doors serving building equipment rooms that are not normally occupied.

The following California sections replace the corresponding model code section for applications specified by law for the Department of Housing and Community Development and the Division of the State Architect/Access Compliance.

#### 1003.3.1.6.1 [For DSA/AC] Thresholds.

**NOTE:** For accessibility requirements for thresholds in accessible housing, see Chapter 11A, Sections 1126A.2, 1126A.2.1, 1132A.3 and 1132A.4, and for public buildings, public accommodations, commercial buildings and publicly funded housing, see Chapter 11B, Section

1003.3.1.6.2 [For HCD 1 w/exceptions 1, 2 & 3] Level floor or landing. There shall be a level and clear area on each side of an exit door and 44 inches (1118 mm) where the door swings away from the level and clear area. The level area shall have a length of at least 60 inches (1524 mm) in the direction of door swing as measured at right angles to the plane of the door in its closed position.

**EXCEPTIONS:** 1. In Group R, Division 3 Occupancies and within individual units of Group R, Division 1 Occupancies, a door may open on the top step of a flight of stairs or an exterior landing, provided the door does not swing over the top step or exterior landing and the landing is not more than  $7^{1}/_{2}$  inches (190 mm) below the floor level.

- 2. In Group R, Division 3 Occupancies, screen doors and storm doors may swing over stairs or steps.
- 3. In Group R, Division 3 Occupancies and private garages and sheds where a door opens over a landing, the landing shall have a length equal to the width of the door.

1003.3.1.7 Landings at doors. Regardless of the occupant load served, landings shall have a width not less than the width of the door or the width of the stairway served, whichever is greater. Doors in the fully open position shall not reduce a required dimension by more than 7 inches (178 mm). Where a landing serves an occupant load of 50 or more, doors in any position shall not reduce the landing dimension to less than one half its required width. Landings shall have a length measured in the direction of travel of not less than 44 inches (1118 mm).

EXCEPTION: In Group R, Division 3, and Group U Occupancies and within individual units of Group R, Division 1 Occupancies, such length need not exceed 36 inches (914 mm).

A landing that has no adjoining door shall comply with the requirements of Section 1003.3.3.5.

1003.3.1.8 Type of lock or latch. Regardless of the occupant load served, exit doors shall be openable from the inside without the use of a key or any special knowledge or effort.

EXCEPTIONS: 1. In Groups A, Division 3; B; F; M and S Occupancies and in all churches, key-locking hardware may be used on the main exit where the main exit consists of a single door or pair of doors where there is a readily visible, durable sign on or adjacent to the door stating, "THIS DOOR MUST REMAIN UNLOCKED DURING BUSINESS HOURS." [For SFM] THIS DOOR TO REMAIN UN-LOCKED WHENEVER THE BUILDING IS OCCUPIED. The sign shall be in letters not less than 1 inch (25 mm) high on a contrasting background. When unlocked, the single door or both leaves of a pair of doors must be free to swing without operation of any latching device. The use of this exception may be revoked by the building official [for HCD 1 & HCD 2] enforcing agency for due cause.

- 2. Exit doors from individual dwelling units; [for SFM] buildings or rooms; Group R, Division 3 congregate residences; and guest rooms of Group R Occupancies having an occupant load of 10 or less may be provided with a night latch, dead bolt or security chain, provided such devices are openable from the inside without the use of a key or tool [for SFM] or special knowledge or effort and mounted at a height not to exceed 48 inches (1219 mm) above the finished floor.
- 3. [For SFM] Mental, penal or corrective institutions where supervisory personnel are continually on duty and effective provisions are made to remove occupants in case of fire or other emergency.

[For SFM & DSA/AC] Bars, grilles, grates or similar devices placed over any required exit door shall be openable from the inside without the use of a key, tool, or any special knowledge or effort. Such bars, grilles, grates or similar devices shall be equipped with an approved release device for use by the fire department only on the exterior side for the purpose of fire department emergency access, when required by the authority having jurisdiction.

Manually operated edge- or surface-mounted flush bolts and surface bolts or any other type of device that may be used to close or restrain the door other than by operation of the locking device shall not be used. Where exit doors are used in pairs and approved automatic flush bolts are used, the door leaf having the automatic flush bolts shall have no doorknob or surface-mounted hardware. The unlatching of any leaf shall not require more than one opera-

#### **EXCEPTIONS:** 1. Group R, Division 3 Occupancies.

2. Where a pair of doors serving a room not normally occupied is needed for the movement of equipment, manually operated edge- or surface-mounted bolts may be used.

1003.3.1.8.1 [For SFM] Type of lock or latch in Group R, Division 2 Occupancies. Group R, Division 2.1.1 and 2.2.1 Occupancies shall not have a night latch, dead bolt, security chain or any similar locking device installed on any interior door leading from the client's sleeping room to any interior area such as a corridor, hallway and or general use areas of the residence.

1003.3.1.9 Panic hardware. Panic hardware, where installed, shall comply with the requirements of UBC Standard 10-4. The activating member shall be mounted at a height of not less than 30 inches (762 mm) nor more than 44 inches (1118 mm) above the floor. The unlatching force shall not exceed 15 pounds (66.72 N) when applied in the direction of travel.

Where pivoted or balanced doors are used and panic hardware is required, panic hardware shall be of the push-pad type and the pad shall not extend across more than one half of the width of the door measured from the latch side.

[For SFM] Other types of hand-activated door-opening hardware shall be centered between 30 inches (762 mm) and 44 inches (1118 mm) above the floor.

1003.3.1.10 Special egress-control devices. When approved by the building official, exit doors in Group B; Group F; Group I, Divisions [for SFM] 1 and 2; Group M; Group R, Division 1 congregate residences serving as group-care facilities and [for SFM] Division 2 facilities licensed as a Residential Care for the Elderly (RCFE) housing clients with Alzheimer's disease and other forms of dementia; residential facilities licensed as an adult residentialcare facility, group home, small family home, foster family home or a family home certified by a foster family agency and Group S Occupancies may be equipped with approved listed special egress-control devices of the time-delay type, provided the building is protected throughout by an approved automatic sprinkler system and an approved automatic smoke-detection system [for *SFM*] in accordance with the California Fire Code. Such devices shall conform to all the following:

- 1. The egress-control device shall automatically deactivate upon activation of either the sprinkler system or the smoke-detec-
- 2. The egress-control device shall automatically deactivate upon loss of electrical power to any one of the following:
  - 2.1 The egress-control device itself.
  - 2.2 The smoke-detection system.
  - 2.3 Means of egress illumination as required by Section 1003.2.9.
- 3. The egress-control device shall be capable of being deactivated by a signal from a switch located in an approved location.

- 4. An irreversible process that will deactivate the egress-control device shall be initiated whenever a manual force of not more than 15 pounds (66.72 N) is applied for two seconds to the panic bar or other door-latching hardware. The egress-control device shall deactivate within an approved time period not to exceed a total of 15 seconds. The time delay established for each egress-control device shall not be field adjustable.
- 5. Actuation of the panic bar or other door-latching hardware shall activate an audible signal at the door.
  - 6. The unlatching shall not require more than one operation.

A sign shall be provided on the door located above and within 12 inches (305 mm) of the panic bar or other door-latching hardware reading:

# "KEEP PUSHING. THIS DOOR WILL OPEN IN SECONDS. ALARM WILL SOUND"

Sign lettering shall be at least 1 inch (25 mm) in height and shall have a stroke of not less than  $\frac{1}{8}$  inch (3.2 mm).

Regardless of the means of deactivation, relocking of the egress-control device shall be by manual means only at the door.

NOTE 1: [For SFM & DSA/AC] A tactile sign shall also be provided in Braille and raised characters, which complies with Section 1117B.5.1 Item 1.

**1003.3.1.11 Safety glazing identification.** Regardless of the occupant load served, glass doors shall conform to the requirements specified in Section 2406.

#### 1003.3.2 Gates.

- **1003.3.2.1 General.** Gates serving a means of egress system shall comply with the requirements of Section 1003.3.2.
- **1003.3.2.2 Detailed requirements.** Gates used as a component in a means of egress system shall conform to the applicable requirements of Section 1003.3.1.

**EXCEPTION:** Gates surrounding stadiums may be of the horizontal sliding or swinging type and may exceed the 4-foot (1219 mm) maximum leaf width limitation.

#### 1003.3.3 Stairways.

1003.3.3.1 General. Every stairway having two or more risers serving any building or portion thereof shall comply with the requirements of Section 1003.3.3. For the purposes of Section 1003.3.3, the term "stairway" shall include stairs, landings, handrails and guardrails as applicable. Where aisles in assembly rooms have steps, they shall comply with the requirements in Section 1004.3.2.

**EXCEPTION:** Stairs or ladders used only to attend equipment or window wells are exempt from the requirements of this section.

For the purpose of this chapter, the term "step" shall mean those portions of the means of egress achieving a change in elevation by means of a single riser. Individual steps shall comply with the detailed requirements of this chapter that specify applicability to steps.

1003.3.3.2 Width. The width of stairways shall be determined as specified in Section 1003.2.3, but such width shall not be less than 44 inches (1118 mm), except as specified herein and in Chapter 11. Stairways serving an occupant load less than 50 shall not be less than 36 inches (914 mm) in width. [For SFM] Stairways serving areas occupied by bed or litter patients in Group I, Division 1.1 Occupancies shall have a clear width of not less than 44 inches (1118 mm). There shall be no projections into the clear width to a height of 80 inches (2032 mm) above the walking surface.

Handrails may project into the required width a distance of  $3^{1}/2$  inches (89 mm) from each side of a stairway. Stringers and other projections such as trim and similar decorative features may project into the required width  $1^{1}/2$  inches (38 mm) from each side.

1003.3.3.3 Rise and run. The rise of steps and stairs shall not be less than 4 inches (102 mm) nor more than 7 inches (178 mm). The greatest riser height within any flight of stairs shall not exceed the smallest by more than  $^{3}/_{8}$  inch (9.5 mm). Except as permitted in Sections 1003.3.3.8.1, 1003.3.3.8.2 and 1003.3.3.8.3, the run shall not be less than 11 inches (279 mm) as measured horizontally between the vertical planes of the furthermost projection of adjacent treads or nosings. Stair treads shall be of uniform size and shape, except the largest tread run within any flight of stairs shall not exceed the smallest by more than  $^{3}/_{8}$  inch (9.5 mm).

**EXCEPTIONS:** 1. Private steps and stairways serving an occupant load of less than 10 and stairways to unoccupied roofs may be constructed with an 8-inch-maximum (203 mm) rise and a 9-inch-minimum (229 mm) run.

- 2. Where the bottom or top riser adjoins a sloping public way, walk or driveway having an established grade (other than natural earth) and serving as a landing, the bottom or top riser may be reduced along the slope to less than 4 inches (102 mm) in height with the variation in height of the bottom or top riser not to exceed 1 unit vertical in 12 units horizontal (8.3% slope) of stairway width.
- **1003.3.3.4 Headroom.** Every stairway shall have a headroom clearance of not less than 6 feet 8 inches (2032 mm). Such clearances shall be measured vertically from a plane parallel and tangent to the stairway tread nosings to the soffit or other construction above at all points.
- 1003.3.3.5 Landings. There shall be a floor or a landing at the top and bottom of each stairway or stair run. Every landing shall have a dimension measured in the direction of travel not less than the width of the stairway. Such dimension need not exceed 44 inches (1118 mm) where the stair has a straight run. At least one intermediate landing shall be provided for each 12 feet (3658 mm) of vertical stairway rise measured between the horizontal planes of adjacent landings. Landings shall be level except that exterior landings may have a slope not to exceed \(^1/\_4\) unit vertical in 12 units horizontal (2% slope). For landings with adjoining doors, see Section 1003.3.1.7.
  - **EXCEPTIONS:** 1. In Group R, Division 3, and Group U Occupancies and within individual units of Group R, Division 1 Occupancies, such length need not exceed 36 inches (914 mm) where the stair has a straight run.
  - 2. Stairs serving an unoccupied roof are exempt from these requirements.
- 1003.3.3.6 Handrails. Stairways shall have handrails on each side, and every stairway required to be more than 88 inches (2235 mm) in width shall be provided with not less than one intermediate handrail for each 88 inches (2235 mm) of required width. Intermediate handrails shall be spaced approximately equally across with the entire width of the stairway.
  - **EXCEPTIONS:** 1. Stairways less than 44 inches (1118 mm) in width or stairways serving one individual dwelling unit in Group R, Division 1 or 3 Occupancy or a Group R, Division 3 congregate residence may have one handrail.
  - 2. Private stairways 30 inches (762 mm) or less in height may have a handrail on one side only.
  - 3. Stairways having less than four risers and serving one individual dwelling unit in Group R, Division 1 or 3, or a Group R, Division 3 congregate residence or Group U Occupancies need not have handrails.

The top of handrails and handrail extensions shall not be placed less than 34 inches (864 mm) nor more than 38 inches (965 mm) above landings and the nosing of treads. Handrails shall be continuous the full length of the stairs and at least one handrail shall extend in the direction of the stair run not less than 12 inches (305 mm) beyond the top riser nor less than 12 inches (305 mm) beyond the bottom riser. Ends shall be returned or shall have rounded terminations or bends.

 $\textbf{EXCEPTIONS:}\ 1.\ Private\ stairways\ do\ not\ require\ handrail\ extensions.$ 

2. Handrails may have starting or volute newels within the first tread on stairways in Group R, Division 3 Occupancies and within individual dwelling units of Group R, Division 1 Occupancies.

The handgrip portion of handrails shall not be less than  $1^{1}/_{4}$  inches (32 mm) nor more than 2 inches (51 mm) in crosssectional dimension or the shape shall provide an equivalent gripping surface. The handgrip portion of handrails shall have a smooth surface with no sharp corners. Handrails projecting from a wall shall have a space of not less than  $1^{1}/_{2}$  inches (38 mm) between the wall and the handrail.

The following California sections replace the corresponding model code section for applications specified by law for the Department of Housing and Community Development and the Division of the State Architect/Access Compliance.

#### 1003.3.3.6.1 Handrails.

1003.3.3.6.1.1 [For HCD 1 w/exceptions; HCD 2 w/exceptions 1, 2, 4 and 5; HCD 1/AC w/exception 6] Required handrails. Stairways shall have handrails on each side, and every stairway required to be more than 88 inches (2235 mm) in width shall be provided with not less than one intermediate handrail for each 88 inches (2235 mm) of required width. Intermediate handrails shall be spaced approximately equally across with the entire width of the stairway.

> EXCEPTIONS: 1. Stairways 44 inches (1118 mm) or less in width may have one handrail except that such stairways open on one or both sides shall have handrails provided on the open side or sides.

- 2. Stairways serving one individual dwelling unit in Group R, Division 1 or 3 Occupancies may have one handrail, except that stairways open on one or both sides shall have handrails on the open side or
- 3. Private stairways 30 inches (762 mm) or less in height may have handrails on one side only.
- 4. Stairways having three risers or less and stairways giving access to portable work stands less than 30 inches (762 mm) high are not required to have handrails.
- 5. Stairways less than 30 inches (762 mm) in width are permitted to have handrails on one side only.
- 6. The provisions of Section 1003.3.3.6.1a shall not apply to existing, covered multifamily buildings.

[ForDSA/AC]NOTE: For Accessibility requirements for handrails in accessible housing, see Chapter 11A, Section 1123A.6.1, and for public buildings, public accommodations, commercial buildings and publicly funded housing, see Chapter 11B, Section 1133B.4.1.1.

1003.3.3.7 Guardrails. Stairways open on one or both sides shall have guardrails as required by Section 509.

#### 1003.3.3.8 Alternative stairways.

1003.3.3.8.1 Circular stairways. Circular stairways conforming to the requirements of this section may be used as a means of egress component in any occupancy. The minimum width of run shall not be less than 10 inches (254 mm) and the smaller stairway radius shall not be less than twice the width of the stairway.

1003.3.3.8.2 Winding stairways. In Group R, Division 3 Occupancies and in private stairways in Group R, Division 1 Occupancies, winding stairways may be used if the required width of run is provided at a point not more than 12 inches (305 mm) from the side of the stairway where the treads are narrower, but in no case shall the width of run be less than 6 inches (152 mm) at any point.

1003.3.3.8.3 Spiral stairways. In Group R, Division 3 Occupancies and in private stairways within individual units of Group R, Division 1 Occupancies, spiral stairways may be installed. A spiral stairway is a stairway having a closed circular form in its plan view with uniform section shaped treads attached to and radiating about a minimum diameter supporting column. Such stairways may be used as a required means of egress component where the area served is limited to 400 square feet (37.16 m<sup>2</sup>).

The tread shall provide a clear walking area measuring at least 26 inches (660 mm) from the outer edge of the supporting column to the inner edge of the handrail. The effective tread is delineated by the nosing radius line, the exterior arc (inner edge of railing) and the overlap radius line (nosing radius line of tread above). Effective tread dimensions are taken along a line perpendicular to the center line of the tread. A run of at least  $7^{1/2}$  inches (191 mm) shall be provided at a point 12 inches (305 mm) from where the tread is the narrowest. The rise shall be sufficient to provide a headroom clearance of not less than 6 feet 6 inches (1981 mm); however, such rise shall not exceed  $9^{1}/2$  inches (241 mm).

1003.3.3.9 Interior stairway construction. Interior stairways shall be constructed based on type of construction requirements as specified in Sections 602.4, 603.4, 604.4, 605.4 and 606.4.

Except where enclosed usable space under stairs is prohibited by Section 1005.3.3.6, the walls and soffits of such enclosed space shall be protected on the enclosed side as required for one-hour fire-resistive construction.

Stairways exiting directly to the exterior of a building four or more stories in height shall be provided with a means for emergency entry for fire department access. (See the Fire Code.)

1003.3.3.10 Protection of exterior wall openings. All openings in the exterior wall below and within 10 feet (3048 mm), measured horizontally, of openings in an interior exit stairway serving a building over two stories in height or a floor level having such openings in two or more floors below, shall be protected by fixed or self-closing fire assemblies having a three-fourths-hour fireprotection rating. See Section 1006.3.3.1.

**EXCEPTIONS:** 1. Group R, Division 3 Occupancies.

- 2. Protection of exterior wall openings is not required where the exterior openings in the interior stairway are protected by fixed or selfclosing fire assemblies having a three-fourths-hour fire-protection rating.
- 3. Protection of openings is not required for open parking garages conforming to Section 405.

1003.3.3.11 Stairway to roof. In buildings four or more stories in height, one stairway shall extend to the roof surface, unless the roof has a slope steeper than 4 units vertical in 12 units horizontal (33% slope).

**1003.3.3.12 Roof hatches.** All required interior stairways that extend to the top floor in any building four or more stories in height shall have, at the highest point of the stair shaft, an approved hatch openable to the exterior not less than 16 square feet (1.5 m<sup>2</sup>) in area and having a minimum dimension of 2 feet (610 mm).

**EXCEPTION:** A roof hatch need not be provided on pressurized enclosures or on stairway sthat extend to the roof with an opening onto

1003.3.3.13 Stairway identification. Stairway identification signs shall be located at each floor level in all enclosed stairways in buildings four or more stories in height. Such signs shall identify the stairway, indicate whether or not there is roof access, the floor level, and the upper and lower terminus of the stairway. The sign shall be located approximately 5 feet (1524 mm) above the landing floor in a position that is readily visible when the door is in either the open or closed position. Signs shall comply with requirements of UBC Standard 10-2.

1003.3.3.13.1 [For SFM & DSA/AC] Tactile stair level identification signs. Tactile stair level identification signs that comply with Section 1117B.5.1 Item 1 shall be located at each floor level of the control of the

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landing in all enclosed stairways in buildings two or more stories in height to identify the floor level. At exit discharge level, the sign shall include a raised five pointed star located to the left of the identifying floor level. The outside diameter of the star shall be the same as the height of the raised characters.

#### 1003.3.4 Ramps.

**1003.3.4.1 General.** Ramps used as a component in a means of egress system shall conform to the requirements of Section 1003.3.4.

**EXCEPTION:** Ramped aisles within assembly rooms shall conform to the requirements in Section 1004.3.2.

1003.3.4.2 Width. The width of ramps shall be determined as specified in Section 1003.2.3, but shall not be less than 44 inches (1118 mm), except as specified herein and in Chapter 11. Ramps serving an occupant load of less than 50 shall not be less than 36 inches (914 mm) in width. [For SFM] Ramps serving areas occupied by bed or liter patients in Group I, Division 1.1 Occupancies shall have a clear width of not less than 44 inches (1118 mm). There shall be no projections into the clear width to a height of 80 inches (2032 mm) above the walking surface.

Handrails may project into the required width a distance of  $3^{1/2}$  inches (89 mm) from each side of a ramp. Other projections, such as trim and similar decorative features, may project into the required width  $1^{1/2}$  inches (38 mm) from each side.

**1003.3.4.3 Slope.** The slope of ramps required by Chapter 11 that are located within an accessible route of travel shall not be steeper than 1 unit vertical in 12 units horizontal (8.3% slope). The slope of other ramps shall not be steeper than 1 unit vertical in 8 units horizontal (12.5% slope).

1003.3.4.4 Landings. Ramps having slopes steeper than 1 unit vertical in 20 units horizontal (5% slope) shall have landings at the top and bottom, and at least one intermediate landing shall be provided for each 5 feet (1524 mm) of vertical rise measured between the horizontal planes of adjacent landings. Top landings and intermediate landings shall have a dimension measured in the direction of ramp run of not less than 5 feet (1524 mm). Landings at the bottom of ramps shall have a dimension in the direction of ramp run of not less than 6 feet (1829 mm).

Doors in any position shall not reduce the minimum dimension of the landing to less than 42 inches (1067 mm) and shall not L C reduce the required width by more than 7 inches (178 mm) [for L C HCD 1/AC] 3 inches (76 mm) when fully open.

Where ramp access is provided to comply with the requirements of Chapter 11 and a door swings over a landing, the landing shall extend at least 24 inches (610 mm) beyond the latch edge of the door, measured parallel to the door in the closed position, and shall have a length measured in the direction of travel through the doorway of not less than 5 feet (1524 mm).

[For DSA/AC] NOTE: For accessibility requirements for landings in public buildings, public accommodations, commercial buildings and publicly funded housing, see Chapter 11B, Section 1133B.5.4.

1003.3.4.5 Handrails. Ramps having slopes steeper than 1 unit vertical in 20 units horizontal (5% slope) shall have handrails as required for stairways, except that intermediate handrails shall not be required. Ramped aisless erving fixed seating shall have handrails as required in Section 1004.3.2.

**1003.3.4.6** Guardrails. Ramps open on one or both sides shall have guardrails as required by Section 509.

[For DSA/AC] NOTE: For accessibility requirements for guard-rails in public buildings, public accommodations, commercial buildings and publicly funded housing, see Chapter 11B, Section 1133B.5.7.1.

**1003.3.4.7 Construction.** Ramps shall be constructed as required for stairways.

**1003.3.4.8 Surface.** The surface of ramps shall be roughened or shall be of slip-resistant materials.

1003.3.4.9 [For HCD 1] Outdoor ramps and their approaches shall be designed and constructed so that water will not accumulate on walking surfaces.

#### C L A L C L A L

#### SECTION 1004 — THE EXIT ACCESS

**1004.1 General.** The exit access is that portion of a means of egress system between any occupied point in a building or structure and a door of the exit. Components that may be selectively included in the exit access include aisles, hallways and corridors, in addition to those means of egress components described in Section 1003.3.

#### 1004.2 Exit-access Design Requirements.

1004.2.1 General. The exit access portion of the means of egress system shall comply with the applicable design requirements of Section 1004.2. For the purposes of Section 1004.2, the term "exit-access doorway" shall mean the point of entry to one portion of the building or structure from another along the path of exit travel. An exit-access doorway occurs where access to all exits is not direct (see Section 1004.2.3). An exit-access doorway does not necessarily include a door. When a detailed requirement specifies an "exit-access door," however, then a door shall be included as a portion of the doorway.

**1004.2.2 Travel through intervening rooms.** The required access to exits from any portion of a building shall be directly from the space under consideration to an exit or to a corridor that provides direct access to an exit. Exit access shall not be interrupted by intervening rooms.

**EXCEPTIONS:** 1. Access to exits may occur through foyers, lobbies and reception rooms.

- 2. Where access to only one exit is required from a space under consideration, exit access may occur through an adjoining or intervening room, which in turn provides direct access to an exit or to a corridor that provides direct access to an exit.
- 3. Rooms with a cumulative occupant load of less than 10 may access exits through more than one intervening room.
- 4. Where access to more than one exit is required from a space under consideration, such spaces may access one required exit through an adjoining or intervening room, which in turn provides direct access to an exit or to a corridor that provides direct access to an exit. All other required access to exits shall be directly from the space under consideration to an exit or to a corridor that provides direct access to an exit.
- 5. In a one- or two-story building classified as a Group F, Group S or Group H, Division 5 Occupancy, offices and similar administrative areas may have access to two required exits through an adjoining or intervening room, which in turn provides direct access to an exit or to a corridor that provides direct access to an exit, if the building is equipped with an automatic sprinkler system throughout and is provided with smoke and heat ventilation as specified in Section 906. Such areas shall not exceed 25 percent of the floor area of the major use.
- 6. Rooms within dwelling units may access exits through more than one intervening room.
- 7. [For SFM] Exits will not pass through any room subject to locking except in Group I, Division 3 Occupancies classified as detention facilities.

Hallways shall be considered as intervening rooms.

Interior courts enclosed on all sides shall be considered as interior intervening rooms.

**EXCEPTION:** Such courts not less than 10 feet (3048 mm) in width and not less than the width determined as specified in Section 1003.2.3 and providing direct access to the exit need not be considered intervening rooms.

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Exit doors from a corridor shall comply with the requirements for the individual exit component being accessed as specified elsewhere in this chapter.

**1004.3.4.3.2.2** Windows. Windows in corridor walls shall be protected by fixed glazing listed and labeled or marked for a fire-protection rating of at least three-fourths hour and complying with Sections 713.8 and 713.9. The total area of windows in a corridor shall not exceed 25 percent of the area of a common wall with any room.

**1004.3.4.3.2.3 Duct openings.** For duct openings in corridors, see Sections 713.10 and 713.11. Where both smoke dampers and fire dampers are required by Sections 713.10 and 713.11, combination fire/smoke dampers shall be used.

**1004.3.4.4 Intervening rooms.** Corridors shall not be interrupted by intervening rooms.

**EXCEPTIONS:** 1. Foyers, lobbies or reception rooms constructed as required for corridors shall not be construed as intervening rooms.

2. In fully sprinklered office buildings, corridors may lead through enclosed elevator lobbies if all areas of the building have access to at least one required exit without passing through the elevator lobby.

**1004.3.4.5** Elevators. Elevators opening into a corridor shall be provided with an elevator lobby at each floor containing such a corridor. The lobby shall completely separate the elevators from the corridor by construction conforming to Section 1004.3.4.3.1 and all openings into the lobby wall contiguous with the corridor shall be protected as required by Section 1004.3.4.3.2.

**EXCEPTIONS:** 1. In office buildings, separations need not be provided from a street floor elevator lobby, provided the entire street floor is protected with an automatic sprinkler system.

- 2. Elevators not required to meet the shaft enclosure requirements of Section 711.
- 3. Where additional doors are provided in accordance with Section 3007.
- 4. Where the hoistway door has a fire-protection rating as required by Section 711.4 and the hoistway door opening is also protected by a listed and labeled smoke containment system complying with ICBO ES AC 77.

Elevator lobbies shall comply with the requirements of Section 3002.

#### **SECTION 1005 — THE EXIT**

- II L A 1005.1 [For DSA/AC] General. The exit is that portion of the means of egress system between the exit access and the exit discharge or the public way. Components that may be selectively included in the exit include exterior exit doors, exit enclosures, exit passageways and horizontal exits, in addition to those common means of egress components described in Section 1003.3.
  - **1005.2** Exit Design Requirements. The exit portion of the means of egress system shall comply with the applicable design requirements of this section.
  - **1005.2.1 Separation of exits.** Exits shall be separated in accordance with the requirements of Section 1004.2.4.
  - **1005.2.2 Travel distance.** Travel distance shall not be limited within an exit enclosure or exit passageway, which complies with the applicable requirements of Section 1005.3.
  - **1005.2.3** Travel through intervening rooms. Exits shall not be interrupted by intervening rooms.

**EXCEPTIONS:** 1. Horizontal exits may lead to an exit-access element complying with the requirements of Section 1004.

2. In office buildings, and Group I, Division 1.1 hospitals and nursing homes, a maximum of 50 percent of the exits may pass through a

street-floor lobby, provided the entire street floor is protected with an automatic sprinkler system.

#### 1005.3 Exit Components.

**1005.3.1** General. Exit components incorporated into the design of the exit portion of the means of egress system shall comply with the requirements of Section 1005.3.

Once a given level of fire-resistive protection is achieved in an exit component, the fire-resistive time-period of such component shall not be reduced until arrival at the exit discharge or the public way.

**EXCEPTION:** Horizontal exits may lead to an exit-access element complying with the requirements of Section 1004.

Doors of exit components that open directly to the exterior of a building shall not be located in areas where openings are not permitted due to location on property by Table 5-A.

#### 1005.3.2 Exterior exit doors.

**1005.3.2.1 General.** Exterior exit doors serving as an exit in a means of egress system shall comply with the requirements of Section 1005.3.2. Buildings or structures used for human occupancy shall have at least one exterior exit door that meets the requirements of Section 1003.3.1.3.

**1005.3.2.2 Detailed requirements.** Exterior exit doors shall comply with the applicable requirements of Section 1003.3.1.

**1005.3.2.3** Arrangement. Exterior exit doors shall lead directly to the exit discharge or the public way.

#### 1005.3.3 Exit enclosures.

**1005.3.3.1** General. Exit enclosures serving as an exit in a means of egress system shall comply with the requirements of Section 1005.3.3. Exit enclosures shall not be used for any purpose other than as a means of egress.

Interior stairways, ramps or escalators shall be enclosed as specified in this section.

**EXCEPTIONS:** 1. In other than Groups H and I Occupancies, an exit enclosure need not be provided for a stairway, ramp or escalator serving only one adjacent floor. Any two such atmospherically interconnected floors shall not communicate with other floors. For enclosure of escalators serving Groups B, F, M and S Occupancies, see Sections 304.6, 306.6, 309.6 and 311.6.

- 2. Stairways in Group R, Division 3 Occupancies and stairways within individual dwelling units in Group R, Division 1 Occupancies need not be enclosed.
- 3. Stairs in open parking garages, as defined in Section 311.9, need not be enclosed.

**1005.3.3.2 Construction.** Exit enclosures shall be of fire-resistive construction as follows:

- 1. In buildings of other than Type I- or Type II-F.R. construction and less than four stories in height, exit enclosures shall not be of less than one-hour fire-resistive construction.
- 2. In buildings of Type I- or Type II-F.R. construction of any height, exit enclosures shall not be of less than two-hour fire-resistive construction.
- 3. In buildings of any type of construction and four or more stories in height, exit enclosures shall not be of less than two-hour fire-resistive construction.

**EXCEPTION:** In sprinkler-protected parking garages restricted to the storage of private or pleasure-type motor vehicles, exit enclosures may be enclosed with glazing meeting the requirements of Sections 713.7, 713.8 and 713.9.

Exit enclosures in buildings of Type I or II construction shall be of noncombustible construction except where combustible materials are permitted in applicable building elements by other provi-

sions of this code. Exit enclosures in buildings of Type III, IV or V construction may be of combustible or noncombustible construction

**1005.3.3.3** Extent of enclosure. Exit enclosures shall be continuous and fully enclose all portions of the stairway or ramp to include parts of floors connecting stairway flights. Exit enclosures shall exit directly to the exterior of the building or shall include an exit passageway on the ground floor leading from the exit enclosure directly to the exterior of the building. Openings into the exit passageway shall comply with the requirements of Section 1005.3.3.5.

**EXCEPTIONS:** 1. Exit passageways are not required from unenclosed stairways or ramps.

2. In office buildings, and Group I, Division 1.1 hospitals and nursing homes, a maximum of 50 percent of the exits may pass through a street-floor lobby, provided the entire street floor is protected with an automatic sprinkler system.

**1005.3.3.4 Barrier.** A stairway in an exit enclosure shall not continue below the grade level exit unless an approved barrier is provided at the ground-floor level to prevent persons from accidentally continuing into the basement. Directional exit signs shall be provided as specified in Section 1003.2.8.

**1005.3.3.5** Openings and penetrations. Openings in exit enclosures shall be limited to those necessary for egress from normally occupied spaces into the enclosure and those necessary for egress from the enclosure.

**EXCEPTION:** Exit enclosures on the exterior walls of buildings may have unprotected openings to the exterior when permitted by Table 5-A.

All interior exit doors in an exit enclosure shall be protected by a fire assembly having a fire-protection rating of not less than one hour where one-hour enclosure construction is permitted in Section 1005.3.3.2 and one and one-half hours where two-hour enclosure construction is required by Section 1005.3.3.2. Such doors shall be maintained self-closing or shall be automatic closing by actuation of a smoke detector as specified in Section 713.2. All hold-open devices shall be listed for the intended purpose and shall close or release the fire assembly to the closed position in the event of a power failure. The maximum transmitted temperature end point for such doors shall not exceed 450°F (232°C) above ambient at the end of 30 minutes of the fire exposure specified in UBC Standard 7-2.

Penetrations into or through an exit enclosure are prohibited except for those serving the exit enclosure such as ductwork and equipment necessary for independent stairway pressurization, sprinkler piping, standpipes and electrical conduit terminating in a listed box not exceeding 16 square inches (10 323 mm²) in area. Penetrations and communicating openings between exit enclosures in the same building are not permitted regardless of their protection.

**1005.3.3.6** Use of space under stairway or ramp. There shall not be enclosed usable space under stairways or ramps in an exit enclosure. The open space under such stairways shall not be used for any purpose.

1005.3.3.7 Pressurized enclosure. In a building having a floor level used for human occupancy located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access, all required exit enclosures shall be pressurized in accordance with Section 905 and this section. Pressurization shall occur automatically upon activation of an approved fire alarm system.

**EXCEPTION:** If the building is not equipped with a fire alarm system, pressurization shall be upon activation of a spot-type smoke

detector listed for releasing service located within 5 feet (1524 mm) of each vestibule entry.

A controlled relief vent capable of discharging a minimum of 2,500 cubic feet per minute ( $1180\,L/s$ ) of air at the design pressure difference shall be located in the upper portion of such pressurized exit enclosures.

**1005.3.3.7.1 Vestibules.** Pressurized exit enclosures shall be provided with a pressurized entrance vestibule that complies with the requirements of this section.

**1005.3.3.7.1.1 Vestibule size.** Vestibules shall not be less than 44 inches (1118 mm) in width and not less than 72 inches (1829 mm) in the direction of travel.

**1005.3.3.7.1.2 Vestibule construction.** Vestibules shall have walls, floors and ceilings of not less than two-hour fire-resistive construction.

1005.3.3.7.1.3 Vestibule doors. The door assembly from the building into the vestibule shall not have less than a one and one-half hour fire-protection rating, and the door assembly from the vestibule to the exit enclosure shall be a smoke- and draft-control assembly having not less than a 20-minute fire-protection rating. Doors shall be maintained self-closing or shall be automatic closing by activation of a smoke detector installed in accordance with Section 713. All hold-open devices shall be listed for the intended purpose and shall close or release the fire assembly to the closed position in the event of a power failure. The maximum transmitted temperature end point for the vestibule entry doors shall not exceed 450°F (232°C) above ambient at the end of 30 minutes of the fire exposure specified in UBC Standard 7-2.

**1005.3.3.7.1.4 Pressure differences.** The minimum pressure differences within the vestibule with the doors closed shall be 0.05-inch water gage (12.44 Pa) positive pressure relative to the fire floor and 0.05-inch water gage (12.44 Pa) negative pressure relative to the exit enclosure. No pressure difference is required relative to a nonfire floor.

**1005.3.3.7.1.5 Standpipes.** Fire department standpipe connections and valves serving the floor shall be within the vestibule and located in such a manner so as not to obstruct egress where hose lines are connected and charged.

1005.3.4 Exit passageways.

**1005.3.4.1 General.** Exit passageways serving as an exit in a means of egress system shall comply with the requirements of Section 1005.3.4. Exit passageways shall not be used for any purpose other than as a means of egress.

1005.3.4.2 Width. The width of exit passageways shall be determined as specified in Section 1003.2.3, but such width shall not be less than 44 inches (1118 mm), except as specified herein. Exit passageways serving an occupant load of less than 50 shall not be less than 36 inches (914 mm) in width.

The required width of exit passageways shall be unobstructed. [For SFM] Exit passageways serving areas occupied by bed or litter patients in Group I, Division 1.1 Occupancies shall have a clear width of not less than 44 inches (1118 mm). There shall be no projections into the clear width to a height of 80 inches (2032 mm) above the walking surface.

**EXCEPTION:** Doors, when fully opened, and handrails shall not reduce the required width by more than 7 inches (178 mm). Doors in any position shall not reduce the required width by more than one half. Other nonstructural projections such astrim and similar decorative features may project into the required width  $1^1/2$  inches (38 mm) on each side

**1005.3.4.3 Construction.** Exit passageways less than 400 feet (121 920 mm) in length shall have walls, floors and ceilings of not less than one-hour fire-resistive construction. Exit passageways

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separate exits or exit-access doorways. All portions of such laboratories shall be within 75 feet (22 860 mm) of an exit or exit-access door.

**1007.3.9 Basement rooms.** Exit stairways from a basement shall open directly to the exterior of the building without entering the first floor.

**1007.3.10 Panic hardware.** Exit and exit-access doors from rooms having an occupant load of 50 or more and from corridors shall not be provided with a latch or lock unless it is panic hardware.

**1007.3.11** Fences and gates. School grounds may be fenced and gates therein may be equipped with locks, provided that safe dispersal areas based on 3 square feet (0.28 m<sup>2</sup>) per occupant are located between the school and the fence. Such required safe dispersal areas shall not be located less than 50 feet (15 240 mm) from school buildings.

[For SFM] Every public and private school shall conform with Section 32020 of the Education Code, which states:

The governing board of every public school district, and the governing authority of every private school, which maintains any building used for the instruction or housing of school pupils on land entirely enclosed (except for building walls) by fences or walls, shall, through cooperation with the local law enforcement and fire-protection agencies having jurisdiction of the area, make provision for the erection of gates in such fences or walls. The gates shall be of sufficient size to permit the entrance of the ambulances, police equipment and firefighting apparatus used by the law enforcement and fire-protection agencies. There shall be no less than one such access gate and there shall be as many such gates as needed to assure access to all major building and ground areas. If such gates are to be equipped with locks, the locking devices shall be designed to permit ready entrance by the use of the chain or bolt-cutting devices with which the local law enforcement and fire-protection agencies may be equipped.

1007.3.12 [For SFM] Floor-level exit signs. Where exit signs are required by Chapter 10, additional approved low-level exit signs which are internally or externally illuminated photoluminiescent or self-luminous, shall be provided in all interior rated exit corridors of Group E Occupancies.

 $\begin{tabular}{ll} \pmb{EXCEPTION:} & \textit{Group E Occupancies where direct exits have been} \\ \textit{provided from each classroom.} \end{tabular}$ 

The bottom of the sign shall not be less than 6 inches (152 mm) or more than 8 inches (203 mm) above the floor level and shall indicate the path of exit travel. For exit and exit-access doors, the sign shall be on the door or adjacent to the door with the closest edge of the sign or marker within 4 inches (102 mm) of the door frame.

**NOTE:** Pursuant to Health and Safety Code Section 13143, the California amendments to this section shall apply to all newly constructed buildings or structures subject to this section for which a building permit is issued (or construction commenced, where no building permit is issued) on or after January 1, 1989.

#### 1007.4 Group H Occupancies.

**1007.4.1** Access to exits. Every portion of a Group H Occupancy having a floor area of 200 square feet (18.6 m<sup>2</sup>) or more shall have access to not less than two separate exits or exit-access doors.

**EXCEPTION:** Group H, Division 4 Occupancies having a floor area of less than 1,000 square feet (92.9 m<sup>2</sup>) may have one exit or exitances door.

**1007.4.2 Travel distance.** The maximum travel distance shall be as specified in Section 1004.2.5 with the applicable additional limitations of Section 1007.4.2.1. The travel distance in Section

1004.2.5 is permitted to be increased as specified in Section 1004.2.5.2.3.

and 3 [For SFM] and 8 Occupancies, all portions of any room shall be within 75 feet (22 860 mm) of an exit or exit-access door from the room

Within Group H, Division 7 [For SFM] and 8, and within fabrication areas of Group H, Division 6 Occupancies, the distance of travel to an exit corridor or to an exit shall not exceed 100 feet (30 480 mm).

**1007.4.3** Corridor doors. Corridor doors shall be protected by a fire assembly having a fire-protection rating of not less than three-fourths-hour *[for SFM]* with smoke gasketing, shall not have more than 100 square inches (64 516 mm<sup>2</sup>) of wired glass set in steel frames and shall be maintained self-closing or shall be automatic closing as specified in Section 713.2.

**1007.4.4 Door swing.** All exit and exit-access doors serving hazardous occupancies shall swing in the exit travel, regardless of the occupant load served.

**1007.4.5 Panic hardware.** Exit and exit-access doors from rooms in Group H, Divisions 1, 2, 3, 6 and 7 [For SFM] and 8 Occupancies shall not be provided with a latch or lock unless it is panic hardware.

**1007.4.6 Incinerator rooms.** Interior openings between a Group H Occupancy and an incinerator room are prohibited.

1007.4.7 [For SFM] Buildings containing Group H, Division 8 Occupancies located four or more floors above the first floor shall have each floor of the building separated with at least one horizontal exit constructed as required for a two-hour fire-resistive occupancy separation as defined in Section 1002 and Part V. Each side of the horizontal exit shall be provided with a separate mechanical exhaust system without interconnection. No side shall be less than 30 percent of the total area for the floor. At least one elevator shall be provided to serve the floor on each side of the horizontal exit wall and shall comply with the provisions of Chapter 30.

#### 1007.5 Group I Occupancies.

**1007.5.1 Minimum size of means of egress.** The clear width of means of egress components in areas serving bed or litter patients shall be such to allow ready passage of beds, gurneys and similar equipment, but shall not be less than 44 inches (1118 mm). Other aisles shall have a clear width of not less than 32 inches (813 mm).

[For SFM] In Group I, Divisions 1.1, 1.2 and 3 Occupancies, ceilings shall have a clear height of not less than 8 feet (2438 mm) from the finished floor.

**1007.5.2 Travel distance.** All portions of Group I, Division 1.1 or 3 Occupancies shall be within 200 feet (60 960 mm) of an exit.

1007.5.3 Hallways. Hallways in Group I Occupancies that serve an occupant load of [For SFM] 7 or more shall comply with the requirements of Sections 1004.3.4 and 1007.5.4 for corridors. [For SFM] Hallways serving any area caring for one or more nonambulatory persons shall not be less than 8 feet (2438 mm) in width.

EXCEPTION: Hallways serving surgical areas of Group I, Division 1.2 Occupancies shall not be less than 6 feet (1829 mm) in width.

Any change in elevation in a hallway serving nonambulatory persons shall be by means of a ramp.

**1007.5.4** Corridors. Corridors serving any area caring for one or more nonambulatory persons shall not be less than 8 feet (2438 mm) in width.

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L C L A L C L A L C

L C L A **EXCEPTIONS:** 1. Corridors serving surgical areas of Group I, Division 1.2 Occupancies shall not be less than 6 feet (1829 mm) in width

[For SFM] 2. In Group I, Division 3 Occupancies such as jails, prisons, reformatories and similar buildings with open-barred cells forming corridor walls, the open-barred cell corridor walls or open-barred cell corridor doors need not be fire resistive.

Any change in elevation in a corridor serving nonambulatory persons shall be by means of a ramp.

Corridors shall comply with the requirements of Section 1004.3.4, except that in hospitals and nursing homes classified as  $|| \stackrel{L}{\underset{}{}} \stackrel{C}{\underset{}{}} \stackrel{C}{\underset{}{}}$  Group I, Division 1.1, [for SFM] 2 or 3 Occupancies, the following exceptions apply:

- L C 1. Nurses' stations, [For SFM] protected by automatic sprinll L A klers and smoke detector(s) including space for doctors' and nurses' charting and communications, constructed as required for corridors need not be separated from corridors.
  - 1.1 [For SFM] Nurses' stations in new and existing facilities are regulated in the California Fire Code and the California Code of Regulations, Title 19.
  - 1.2 [For SFM] Smoke detector(s) shall be interconnected to the facility's fire alarm system and shall be placed and installed in accordance with the manufacturer's specifications.
  - 2. Waiting areas and similar spaces constructed as required for corridors need not be separated from corridors, provided:
    - 2.1 Where the aggregate of waiting areas in each smoke compartment does not exceed 600 square feet (55.7 m<sup>2</sup>).
      - 2.1.1 Each area is located to permit direct visual supervision by the facility staff;
      - 2.1.2 Each area is equipped with an electrically supervised automatic smoke-detection system; and
      - 2.1.3 Each area is arranged not to obstruct access to required exits.
    - 2.2 Where such spaces [for SFM] waiting areas may be unlimited in size and open to the corridor.
      - 2.2.1 The spaces are not used for patient sleeping rooms, treatment rooms, hazardous areas or special use areas listed in Table 3-C [Item 2.2.1 is not adopted by SFM];
      - 2.2.2 Each space is located to permit direct visual supervision by the facility staff;
      - 2.2.3 The space and corridors that the space open onto in the same smoke compartment are protected by an electrically supervised automatic smoke-detection system; and
      - 2.2.4 The space is arranged not to obstruct access to required exits.
  - 3. In fully sprinklered buildings, door closers need not be installed on doors to sleeping or treatment rooms.
  - L A A [For SFM] In fully sprinklered buildings, fixed fully tempered or laminated glass in wood or metal frames may be used in corridor walls, provided the glazed area does not exceed 25 percent of the area of the corridor wall of the room.
  - L C A 5. [For SFM] In fully sprinklered buildings, the total area of glass in corridor walls is not limited when the glazing is fixed <sup>1</sup>/<sub>4</sub>-inch-thick (6.4 mm) wired glass in steel frames and the size of individual glazed panel does not exceed 1,296 square inches (0.836 m<sup>2</sup>).
  - <sup>C</sup> A 6. [For SFM] In fully sprinklered buildings, corridor doors other than those required to be rated by Section 308.8 or for the

enclosing of a vertical opening or an exit are not required to be fire-rated, provided the doors are tightfitting, smoke- and draft-control [ForSFM] door assemblies with a gasket installed so as to provide a seal where the door meets the stop on both sides and across the top and are provided with positive latches. Roller latches are prohibited.

**1007.5.5** Exterior exit doors. All required exterior exit doors shall open in the direction of exit travel regardless of the occupant load served.

**1007.5.6 Basement exits.** All rooms below grade shall have not less than one exit that leads directly to the exterior at grade level.

**1007.5.7 Ramps.** Where the first story of Group I, Divisions 1.1 and 1.2 Occupancies is at other than grade level, such occupancies housing nonambulatory patients shall have a ramp leading from the first story to the exterior of the building at grade level.

**1007.5.8 Hardware.** Exit and exit-access doors serving an area having an occupant load of 50 or more shall not be provided with a latch or lock unless it is panic hardware. Patient room doors shall be readily openable from either side without the use of keys.

**EXCEPTIONS:** 1. In Group I, Division 1.1 hospitals and nursing homes, locking devices, when approved, may be installed on patient sleeping rooms, provided such devices are readily openable from the patient room side and are readily operable by the facility staff on the other side. Where key locks are used on patient room doors, keys shall be located on the floor involved at a prominent location accessible to the staff.

2. In Group I, Division 3 Occupancies, approved locks or safety devices may be used where it is necessary to forcibly restrain the personal liberties of inmates or patients.

#### 1007.5.9 Suites.

- **1007.5.9.1 General.** A group of rooms in a Group I, Division 1.1, Division 1.2 or Division 2 Occupancy may be considered a suite when it complies with the following:
- 1. Size. Suites or rooms, other than suites containing patient sleeping rooms, shall not exceed 10,000 square feet (929 m $^2$ ) in area. Suites containing patient sleeping rooms shall not exceed 5,000 square feet (464.5 m $^2$ ) in area.
- 2. **Occupancy separation.** Each suite of rooms shall be separated from the remainder of the building by not less than a one-hour fire-resistive occupancy separation.
- 3. **Visual supervision.** Each patient sleeping room in the suite shall be located to permit direct and constant visual supervision by the facility staff.
- 4. **Other exits.** Exiting for portions of the building outside a suite shall not require passage through the suite.
- **1007.5.9.2** Corridors. One-hour fire-resistive corridor construction is not required within a suite.

1007.5.9.3 Travel through adjoining rooms. Rooms within suites may have access to exits through one adjoining room if there is not more than 100 feet (30 480 mm) of travel distance within the suite to an exit or to a corridor that provides direct access to an exit. Rooms other than patient sleeping rooms may access exits through two adjoining rooms where there is not more than 50 feet (15 240 mm) of travel distance within the suite to an exit or to a corridor that provides direct access to an exit.

Other portions of the exit access shall not pass through suites.

1007.5.10 [For SFM] Exits access through adjoining rooms. In Group I, Division 1.1 Occupancies, every patient sleeping room or treatment room shall have an exit access door leading directly to an exit corridor.

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# Chapter 11A [For HCD 1/AC] HOUSING ACCESSIBILITY Division I—APPLICATION, GENERAL PROVISIONS AND DEFINITIONS

NOTE: This Chapter has been revised in its entirety.

#### Division I Table of Contents

Section 1101A Application

Section 1102A Building Accessibility

Section 1103A Design and Construction

Section 1104A Group R Occupancies

Section 1105A Group U Occupancies

Section 1106A Site and Building Characteristics

Section 1107A Definitions

#### SECTION 1101A — APPLICATION

1101A.1 Scope. The application and authority of this chapter are identified and referenced in Sections 101.17.9.1 and 1102A for the Department of Housing and Community Development. Applicable sections are identified in the Matrix Adoption Tables of this code under the abbreviation HCD 1/AC. The provisions of this chapter shall apply to the following:

- 1. All newly-constructed covered multifamily dwellings.
- New common use spaces serving existing covered multifamily dwellings.
- 3. Additions to existing buildings, where the addition alone meets the definition of a covered multifamily dwelling.
  - 4. Common-use areas serving covered multifamily dwellings.

These building standards generally do not apply to public accommodations such as hotels and motels. Public use areas, public accommodations and housing which is publicly funded as defined in Chapter 2, Chapter 11A, and Chapter 11B of this code are subject to provisions of the Division of the State Architect (DSA/AC) and are referenced in Section 101.17.11.

#### SECTION 1102A — BUILDING ACCESSIBILITY

1102A.1 Where Required. Buildings or portions of buildings and facilities within the scope of this chapter shall be accessible to persons with disabilities. Each building on a building site shall be considered separately when determining the requirements contained in this chapter, except when calculating the number of units which must comply with Section 1102A.3.1. Dwelling units within a single structure separated by firewalls do not constitute separate buildings.

Newly-constructed covered multifamily dwellings as defined in this chapter, include, but are not limited to, the following:

- 1. Apartment buildings with three or more dwelling units including timeshare apartments not considered a place of public accommodation or transient lodging as defined in Health and Safety Code Section 19955 (a) and Chapter 2 of the California Building Code.
- 2. Condominiums with four or more dwelling units including timeshare condominiums not considered a place of public accommodation or transient lodging as defined in Health and Safety Code Section 19955 (a) and Chapter 2 of the California Building Code.
- 3. Lodging houses, as defined in Chapter 2 of the California Building Code, used as a residence with more than three but not more than five guest rooms.
- 4. Congregate residences, as defined in Chapter 2 of the California Building Code.
- 5. Dwellings with three or more efficiency units, as defined in Chapter 2 of this Code or Section 17958.1 of the California Health and Safety Code.
- 6. Shelters for homeless persons, not otherwise subject to the disabled access provisions of the Division of the State Architect, Access Compliance (DSA/AC).
- 7. Dormitories, as defined in Chapter 2 of this Code, with three or more guest rooms as defined in Chapter 2 of the California Building Code.
- 8. Timeshare dwellings with three or more units, not considered a place of public accommodations or transient lodging as defined in Health and Safety Code Section 19955 (a) and Chapter 2 of the California Building Code.

- 9. Other Group R Occupancies in covered multifamily dwellings which are regulated by the Office of the State Fire Marshal. See Section 101.17.14.
- 10. Housing which is publicly funded as defined in Chapter 2 of this code is subject to provisions of the Division of the State Architect (DSA/AC). See Section 1111.B.5.
- 1102A.2 Existing Buildings. The building standards contained in this chapter do not apply to the alteration, repair, rehabilitation or maintenance of Group R Occupancies constructed for first occupancy prior to March 13, 1991. Housing which is publicly funded as defined in Chapter 2 of this code is subject to provisions of the Division of the State Architect (DSA/AC). See Section 1111.B.5.

Covered multifamily dwellings shall be maintained in compliance with the accessibility standards in effect at the time of construction. Apartments constructed prior to March 13, 1991 shall be maintained in compliance with the accessibility standards in effect at the time of construction.

Additions to Group R occupancies shall be subject to the requirements of this chapter, provided the addition, when considered alone, meets the definition of a covered multifamily dwelling, as defined in this chapter. New common use spaces serving existing covered multifamily dwellings shall be subject to the requirements of this chapter.

**NOTE:** For all existing public use areas, public accommodations, and housing which is publicly funded, see Chapter 11B, Division IV, Section 1134B for provisions of the Division of the State Architect, Access Compliance (DSA/AC).

#### 1102A.3 Multistory Dwellings.

1102A.3.1 Multistory apartment or condominium dwellings in buildings with no elevator. This section shall apply to multistory dwelling units on the ground floor of buildings without elevators for which an application for a construction permit is submitted on or after July 1, 2005.

**EXCEPTION:** Carriage units as defined in Section 1102A.3-C and regulated only by the Department of Housing and Community Development as referenced in Section 101.17.9.1

At least ten percent but not less than one of the multistory dwellings in apartment buildings with three or more dwelling units and/or condominiums with four or more dwelling units shall comply with the following:

- 1. The primary entry to the dwelling unit shall be on an accessible route unless exempted by site impracticality tests in Section 1150A.
- 2. At least one powder room or bathroom shall be located on the primary entry level, served by an accessible route and shall comply with the provisions in Division IV.
- 3. All rooms or spaces located on the primary entry level shall be served by an accessible route and shall comply with the provisions in Division IV. Rooms and spaces located on the primary entry level and subject to this chapter may include but are not limited to kitchens, powder rooms, bathrooms, living rooms, bedrooms or hallways.
- 4. Common use areas covered by this section shall be accessible as required by this chapter. Public use areas as defined in Chapter 2, Chapter 11A, and Chapter 11B of this code are subject to provisions of the Division of the State Architect (DSA/AC) and are referenced in Section 101.17.11.

The minimum number of multifamily dwelling units which must comply with this section shall be calculated using the total number of all multistory dwelling units in buildings on a site which are subject to this section. Any fraction thereof shall be rounded to next highest whole number.

- 1102A.3.2 Multistory dwelling units in buildings with one or more elevators. Multistory dwelling units, i.e., townhouse and condominium-type construction, contained in buildings with elevators shall comply with this section. For multistory dwelling units in buildings with elevators, the story of the unit that is served by the building elevator is considered a ground floor and the primary entry floor to the unit.
- 1. All rooms and spaces located on the primary entry floor shall comply with the following: At least one powder room or bathroom shall be located on the primary entry level.
- 2. All rooms or spaces located on the primary entry level shall be served by an accessible route and shall comply with Division IV.
- 1102A.4 Participation Areas. Access shall be provided to elements listed in Section 1104B.4.3, "Participation areas."
- 1102A.5 Swimming Pools. Swimming pools and spas required to be accessible shall comply with the provisions of Section 1141A.
- 1102A.6 Temporary Restrictions. During periods of partial or restricted use of a building or facility, the entrances used for primary access shall be accessible to and usable by persons with disabilities.

#### SECTION 1103A — DESIGN AND CONSTRUCTION

1103A.1 General.

1103A.1.1 When buildings are required to be accessible, they shall be designed and constructed as provided in this chapter.

**NOTE:** Public use areas, public accommodations and housing which is publicly funded as defined in Chapter 2, Chapter 11A and Chapter 11B of this code are subject to provisions of the Division of the State Architect (DSA/AC) and are referenced in Section 101.17.11.

#### SECTION 1104A — GROUP R OCCUPANCIES

1104A.1 General. All ground-floor dwelling units in nonelevator buildings shall be adaptable and on an accessible route, unless an accessible route is not required as determined by site impracticality provisions in Section 1150A. For buildings with elevators, see Section 1106A.

Multistory dwellings units shall comply with Section 1102A.3.

1104A.2 Ground Floors Above Grade. Where the first floor containing dwelling units in a building is above grade, all units on that floor shall be served by an accessible route. This floor will be considered a ground floor and all dwelling units are considered covered multifamily dwelling units.

**EXCEPTION:** Carriage units as defined in Section 1102A.3-C and regulated only by the Department of Housing and Community Development as referenced in Section 101.17.9.1

Multistory dwellings units shall comply with Section 1102A.3.

#### SECTION 1105A — GROUP U OCCUPANCIES

1105A.1 General. Group U, Division 1, private garages which are accessory to covered multifamily dwelling units, shall be accessible as required in Section 1109A. Group U, Division 1, private garages include individual garages and multiple individual garages grouped together.

#### SECTION 1106A — SITE AND BUILDING CHARACTERISTICS

- 1106A.1 General. Covered multifamily dwellings with elevators shall be designed and constructed to provide at least one accessible entrance on an accessible route, regardless of terrain or unusual characteristics of the site. Covered multifamily dwellings without elevators shall be designed and constructed to provide at least one accessible entrance on an accessible route unless terrain or unusual characteristics of the site prevent an accessible route based on the conditions listed below:
- 1. Accessible entrance. Regardless of site considerations described in Section 1150A, an accessible entrance on an accessible route is required when there is an elevator connecting the parking area with the dwelling units on a ground floor. (In this case, those dwelling units on the ground floor served by an elevator, and at least one of each type of public- and common-use areas, would be subject to these requirements.)
- 2. Elevator building. When a building elevator or elevators are provided as a means of access to dwelling units other than dwelling units on a ground floor (see Section 1104A.2), the building is an elevator building. All dwelling units become covered multifamily dwellings in that building. The elevator in that building must provide accessibility to all dwelling units in the building, regardless of the slope of the natural terrain. For multistory dwelling units in buildings with one or more elevators, see Section 1102A.3.2.

**NOTE:** Where a building elevator is provided only as means of creating an accessible route to covered multifamily dwelling units on a ground floor, the building is not considered to be an elevator building, only dwelling units located on the ground floor shall be required to comply with this chapter.

3. Elevated walkway. When an elevated walkway is planned between a building entrance and a vehicular or pedestrian arrival point, and the planned walkway has a slope no greater than 10 percent (1 unit vertical in 10 units horizontal), the floor being served by the elevated walkway becomes a ground floor and accessibility to all dwellings on that ground floor is required.

**NOTE:** Since the planned walkway meets the 10% slope criterion, it is required to provide an accessible route to the entrance, and the slope of the walkway must be reduced to 1 unit vertical in 12 units horizontal (8.33% slope) maximum.

1106A.2 Site Impracticality. For tests to determine site impracticality due to terrain considerations in nonelevator buildings, see Section 1150A.

#### SECTION 1107A — DEFINITIONS

For the purpose of this chapter, certain terms are defined as follows:

#### 1107A.1-A

ACCESSIBLE for covered multifamily dwellings is the publicor common-use areas of the building that can be approached, entered and used by persons with disabilities.

ACCESSIBLE ROUTE is a continuous and unobstructed path connecting all accessible elements and spaces in a building or within a site that can be negotiated by a person with a disability using a wheelchair, and that is also safe for and usable by persons with other disabilities. Interior accessible routes may include corridors, hallways, floors, ramps, elevators and lifts. Exterior accessible routes may include parking access aisles, curb ramps, crosswalks at vehicular ways, walks, ramps and lifts.

ACCESSIBILITY is the combination of various elements in a building or area which allows access, circulation and the full use of the building and facilities by persons with disabilities.

ADAPTABLE DWELLING UNIT is an accessible dwelling unit within a covered multifamily building as designed with elements and spaces allowing the dwelling unit to be adapted or adjusted to accommodate the user. See Division IV.

ASSISTIVE DEVICE is an aid, tool or instrument used by persons with disabilities to assist in activities of daily living.

AUTOMATIC DOOR is a door equipped with a power-operated mechanism and controls that open and close the door automatically upon receipt of a momentary actuating signal. The switch that begins the automatic cycle may be a photoelectric device, floor mat or manual switch.

#### 1107A.2-B

BATHROOM is, for the purposes of this chapter, a room which includes a water closet (toilet), lavatory (sink), and/or a bathtub and/or a shower. It does not include single-fixture facilities or those with only a water closet and lavatory. It does include a compartmented bathroom. A compartmented bathroom is one in which the fixtures are distributed among interconnected rooms. A compartmented bathroom is considered a single unit and is subject to the requirements of this chapter.

BUILDING ENTRANCE ON AN ACCESSIBLE ROUTE is an accessible entrance to a building that is connected by an accessible route to public transportation stops, to parking or passenger loading zones, or to public streets or sidewalks, if available.

#### 1107A.3-C

CARRIAGE UNIT. A dwelling unit with living space on one or more floors immediately above a Group U, Division 1, private garage or garages. The footprint of the garage or garages is used as the footprint for the remaining floor or floors of the units above, and the garage level contains no habitable space.

**NOTE:** Dwelling units located over a common garage shall not be considered carriage units.

**COMMON-USE AREAS** are private use areas within multifamily residential facilities where the use of these areas are limited exclusively to owners, residents and their guests. The areas may be defined as rooms or spaces or elements inside or outside of a building.

COVERED MULTIFAMILY DWELLINGS are dwelling units in buildings consisting of three or more dwelling units or four or more condominium units. Covered Multifamily Dwellings include dwelling units listed in Section 1102A.1. Dwelling units within a single structure separated by firewalls do not constitute separate buildings.

**NOTE:** For buildings or complexes containing publicly funded dwelling units, see Chapter 11B, Section 1111B.5 for provisions of the Division of the State Architect, Access Compliance (DSA/AC).

**CROSS SLOPE** is the slope that is perpendicular to the direction of travel.

**CURB CUT** is an interruption of a curb at a pedestrian way, which separates surfaces that are substantially at the same elevation.

CURB RAMP is a sloping pedestrian way, intended for pedestrian traffic, which provides access between a walk or sidewalk and a surface located above or below an adjacent curb face.

#### 1107A.4-D

**DETECTABLE WARNING** is a standardized surface or feature built into or applied to walking surfaces or other elements to warn visually impaired persons of hazards in the path of travel. Only approved DSA/AC detectable warning products and directional surfaces shall be installed as provided in the CCR, Title 24,

Part 1, Articles 2, 3 and 4. Refer to CCR, Title 24, Part 12, Chapter 12-11A and B for building and facilities access specifications for product approval for detectable warning products and directional surfaces.

**NOTE:** Detectable warning products and directional surfaces installed after January 1, 2001, shall be evaluated by an independent entity, selected by the Department of General Services, Division of the State Architect-Access Compliance, for all occupancies, including transportation and other outdoor environments, except that when products and surfaces are for use in residential housing, evaluation shall be in consultation with the Department of Housing and Community Development. See Government Code Section 4460.

**DWELLING UNIT** is a single unit of residence for a family of one or more persons. Examples of dwelling units covered by this chapter include condominiums, an apartment unit within an apartment building, and other types of dwellings in which sleeping accommodations are provided but toileting or cooking facilities are shared by occupants of more than one room or portion of the dwelling. Examples of the latter include dormitory rooms and sleeping accommodations in shelters intended for occupancy as residences for homeless persons.

#### 1107A.5-E

**EQUIVALENT FACILITATION** is an alternate means of complying with the literal requirements of these standards and specifications that provides access consistent with the purpose of these standards and specifications.

NOTES: 1. See Section 101.2, Purpose.

2. In determining equivalent facilitation, consideration shall be given to means that provide for the maximum independence of persons with disabilities while presenting the least risk of harm, injury or other hazard to such persons or others.

#### 1107A.6-F

**FACILITY** (or FACILITIES) is a building, structure, room, site, complex or any portion thereof, that is built, altered, improved or developed to serve a particular purpose.

#### 1107A.7-G

**GRAB BAR** is a bar for the purpose of being grasped by the hand for support.

**GROUND FLOOR** is the floor of a building with a building entrance on an accessible route. A building may have one or more ground floors.

#### 1107A.8-H

HANDRAIL is a device to be used as a handhold.

#### 1107A.9-I

INDEPENDENT ENTITY. See Chapter 2, Section 210-I.

INTERNATIONAL SYMBOL OF ACCESSIBILITY is that symbol adopted by Rehabilitation International's 11th World Congress for the purpose of indicating that buildings and facilities are accessible to persons with disabilities. See Chapter 11A, Figure 11A-1A

1107A.10-J (No definitions)

#### 1107A.11-K

KICK PLATE is an abrasion-resistant plate affixed to the bottom portion of a door to prevent a trap condition and protect its surface.

#### 1107A.12-L

**LEVEL AREA** is a specified surface that does not have a slope in any direction exceeding  $^{1}/_{4}$  inch (6.4 mm) in 1 foot (305 mm) from the horizontal (2.083 percent gradient).

#### 1107A.13-M

MARKED CROSSING is a crosswalk or other identified marked path intended for pedestrian use in crossing a vehicular way.

MULTISTORY DWELLING UNIT is a dwelling unit with finished living space located on one floor and the floor or floors immediately above or below it.

#### 1107A.14-N

**NEWLY CONSTRUCTED** is a building that has never before been used or occupied for any purpose.

**NOSE**, **NOSING**, is that portion of a tread projecting beyond the face of the riser immediately below.

#### 1107A.15-0

**OPEN RISER** is the air space between a tread projecting beyond the face of the riser immediately below.

#### 1107A.16-P

**PASSAGE DOOR** is a door other than an exit door through which persons may traverse.

**PEDESTRIAN** is an individual who moves within walking areas with or without the use of walking-assistive devices such as crutches, leg braces, wheelchairs, etc.

**PEDESTRIAN RAMP** is a sloping accessible route intended for pedestrian traffic and is differentiated from a curb ramp.

**PEDESTRIAN WAY** is a route by which a pedestrian may pass.

PERSONS WITH DISABILITIES For purposes of this chapter, "persons with disabilities" includes, but is not limited to, any physical or mental disability as defined in Government Code Section 17926

**POWDER ROOM** is a room containing a water closet (toilet) and lavatory (sink), and which is not defined as a bathroom in Section 1107A.2-B.

**PRIMARY ENTRY** is the principal entrance through which most people enter the building, as designated by the building official.

**PRIMARY ENTRY LEVEL** is the floor or level of the building on which the primary entry is located.

PUBLIC ACCOMMODATION. See Chapter 2, Section 217-P.

**PUBLIC-USE AREAS** means interior or exterior rooms or spaces of a building that are made available to the general public and does not include Common Use Areas as defined in Section 1107A.3-C. Public Use Areas may be provided at a building that is privately or publicly owned.

1107A.17-Q (No definitions)

#### 1107A.18-R

RAMP. See "Pedestrian Ramp," Section 1107A.16-P.

**RISER** is the vertical distance from the top of a tread to the top of the next higher tread.

#### 1107A.19-S

SIDEWALK. See "Sidewalk," Chapter 2, Section 220-S.

**SLEEPING ACCOMMODATIONS** are rooms in which people may sleep; for example, dormitory and hotel or motel guest rooms or suites.

**SLOPE** is the relative steepness of the land between two points and is calculated as follows:

The horizontal distance and elevation change between the two points (e.g., an entrance and a passenger loading zone). The difference in elevation is divided by the distance, and the resulting fraction is multiplied by 100 to obtain the percentage of slope.

For example: if a principal entrance is 10 feet (3048 mm) from a passenger loading zone, and the principal entrance is raised 1 foot (305 mm) higher than the passenger loading zone, then the slope is  $1/10 \times 100 = 10$  percent.

SPECIAL ACCESS LIFT is a hoisting and lowering mechanism equipped with a car or platform, or support, which serves two landings of a building or structure and is designed to carry a passenger or passengers and/or luggage or other material a vertical distance as may be allowed by Section 1124A.11.

#### 1107A.20-T

**TOEBOARD** is a vertical barrier erected along the open edges of floor openings or floor holes, platforms and runways.

**TOWNHOUSE** is a multistory dwelling unit.

TRANSIENT LODGING is a building, facility or portion thereof, available to the public as an inn, hotel, motel, timeshare or place where one or more dwelling units or sleeping accommodations are provided for transient guests, excluding inpatient medical care facilities and lodging houses with five or less guest rooms. Transient lodging may include but is not limited to, resorts, group homes and dormitories.

**TREAD** is the horizontal member of a step.

**TREAD DEPTH** is the horizontal distance from front to back of tread, including nosing when used.

**TREAD RUN** is the horizontal distance from the leading edge of a tread to the leading edge of an adjacent tread.

1107A.21-U (No definitions)

#### 1107A.22-V

VEHICULAR OR PEDESTRIAN ARRIVAL POINTS are public or resident parking areas, public transportation stops, passenger loading zones, and public streets or sidewalks.

#### 1107A.23-W

**WALK** is a surfaced pedestrian way not located contiguous to a street used by the public. (See Section 220-S definition for "sidewalk.")

WHEELCHAIR is a chair mounted on wheels to be propelled by its occupant manually or with the aid of electric power, of a size and configuration conforming to the recognized standard models of the trade.

1107A.24-X (No definitions)

1107A.25-Y (No definitions)

1107A.26-Z (No definitions)

#### **Division II—EXTERIOR FACILITIES**

Section 1116A Hazards on Accessible Routes

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# SECTION 1108A — GENERAL REQUIREMENTS FOR ACCESSIBLE PARKING, AND EXTERIOR ROUTES OF TRAVEL

**NOTES:** 1. In addition to provisions of this Division, exterior routes of travel that provide access to, or egress from, buildings for persons with disabilities shall also comply with Chapter 10.

2. Public use areas, public accommodations, and housing which is publicly funded as defined in Chapter 2, Chapter 11A, and Chapter 11B of this code are subject to provisions of the Division of the State Architect (DSA/AC) and are referenced in Section 101.17.11.

#### SECTION 1109A — PARKING FACILITIES

1109A.1 Accessible Parking Required. Each parking facility provided for covered multifamily dwellings and facilities (e.g., swimming pools, club houses, recreation areas and laundry rooms) that serve covered multifamily dwellings shall provide accessible parking as required by this section.

1109A.2 Parking Facilities. Parking facilities shall include, but not be limited to, the following:

- 1. Garages.
- 2. Private garages (see Section 1105A for the application of building standards for accessibility).
  - 3. Carports.
  - 4. Off-street parking (parking lots/spaces).

1109A.2.1 Private garages. Group U, Division 1, private garages which are accessory to covered multifamily dwelling units, shall be accessible as required in Section 1109A. Group U, Division 1, private garages include individual garages and multiple individual garages grouped together.

EXCEPTION: A private garage attached to and which directly serves a single covered multifamily dwelling unit is an accessible garage if a person with a disability can exit the dwelling unit's accessible entry door by an accessible route and enter the garage from the driveway. The provisions in Section 1109A shall not apply.

1109A.3 Required Accessible Parking Spaces. Accessible parking spaces shall be provided at a minimum rate of 2 percent of the covered multifamily dwelling units. At least one space of each type of parking facility shall be made accessible even if the total number exceeds 2 percent. When assigned parking is provided, signage as required by Section 1109A.8.8 shall not be required.

1109A.4 Assigned Accessible Parking Spaces. When assigned parking spaces are provided for a resident or a group of residents, at least 2 percent of the assigned parking spaces serving covered multifamily dwelling units shall be accessible in each type of parking facility. At least one space of each type of parking facility shall be made accessible even if the total number exceeds 2 percent. When assigned parking is provided, signage as required by Section 1109A.8.8 shall not be required.

1109A.5 Unassigned and Visitor Parking Spaces. When parking is provided for covered multifamily dwellings and is not assigned to a resident or a group of residents, at least 5 percent of the parking spaces shall be accessible and provide access to grade-level entrances of covered multifamily dwellings and facilities (e.g., swimming pools, club houses, recreation areas and laundry rooms) that serve covered multifamily dwellings. Accessible parking spaces shall be provided with signage as required by Section 1109A.8.8. Such signage shall not be blocked from view by a vehicle parked in the space.

1109A.6 Requests for Accessible Parking Spaces. When assigned parking is provided, designated accessible parking for the

dwelling unit shall be provided on request of residents with disabilities on the same terms and with the full range of choices (e.g., off-street parking, carport or garage) that are available for other residents.

1109A.7 Location of Accessible Parking Spaces. The location of accessible parking spaces shall comply with the following:

- 1. Accessible parking spaces shall be located on the shortest accessible route to an accessible building, or covered multifamily dwelling unit entrance. All van accessible spaces may be grouped on one level of a parking facility.
- 2. When parking facilities are located adjacent to a building with multiple accessible entrances, accessible parking spaces shall be dispersed and located near the accessible building entrances.
- 3. When practical, the accessible route shall not cross lanes for vehicular traffic. When crossing vehicle traffic lanes is necessary, the accessible route shall be designated and marked as a crosswalk.
- 4. Parking facilities that do not serve a particular building shall have accessible parking spaces located on the shortest accessible route to an accessible pedestrian entrance of the parking facility.
- 5. Accessible parking spaces shall be located so that persons with physical disabilities are not compelled to wheel or walk behind parked cars other than their own.

EXCEPTION: When the enforcement agency determines that compliance with this section or providing equivalent facilitation would create an unreasonable hardship, parking spaces may be provided which would require a person with physical disabilities to wheel or walk behind other than accessible parking spaces.

1109A.8 Design and Construction. Accessible parking required by this section shall be designed and constructed in accordance with Section 1109A.

1109A.8.1 Vertical clearances. Where required to be accessible, all entrances into, and vertical clearances within parking facilities shall have a minimum vertical clearance of 8 feet 2 inches (2489 mm) from the floor to the lowest projection from the ceiling.

1109A.8.2 Arrangement of parking spaces. Parking spaces shall be arranged to comply with the following:

- 1. In each parking area, a bumper or curb shall be provided and located to prevent encroachment of cars over the required width of walkways.
- 2. Ramps, including curb ramps, shall not encroach into any accessible parking space or the adjacent loading and unloading access aisle.
- 1109A.8.3 Slope of accessible parking spaces. Surface slopes of accessible parking spaces shall be the minimum possible and shall not exceed  $^{1}/_{4}$  inch (6.35 mm) per foot (2.083% gradient) in any direction.

1109A.8.4 Accessible parking space size. Accessible parking spaces shall comply with Sections 1109A.8.5 and 1109A.8.6.

1109A.8.5 Accessible single parking space. Where accessible single spaces are provided, they shall be constructed in accordance with the following:

- 1. Single spaces shall be 14 feet (4267 mm) wide and lined to provide a 9-foot (2743 mm) wide parking area and a 5-foot (1524 mm) wide loading and unloading access aisle on the passenger side of the vehicle (see Figure 11A-2B) with the vehicle parked in the forward position.
- 2. When more than one space is provided. Two 9-foot (2743 mm) wide parking spaces may be lined on each side of a 5-foot

(1524 mm) wide loading and unloading access aisle. See Figures 11A-2A and 11A-2C.

- 3. The minimum length of each parking space shall be 18 feet (5486 mm).
- 4. The words "NO PARKING" shall be painted on the ground within each 5-foot (1524 mm) wide loading and unloading access aisle. This notice shall be painted in white letters no less than 12 inches (305 mm) high and located so that it is visible to traffic enforcement officials. See Figures 11A-2A, 11A-2B and 11A-2C.
- 1109A.8.6 Van Accessible Parking Space. One in every eight accessible spaces, but not less than one, shall be van accessible and shall be constructed in accordance with the following:
- 1. Each space shall be served by a loading and unloading access aisle at least 8 feet (2438 mm) wide, placed on the passenger side with the vehicle parked in the forward position.
- 2. The minimum length of each space shall be 18 feet (5486 mm).
- 3. Each space shall be designated "van accessible" as required by 1109A.8.8.
- 4. All van accessible spaces may be grouped on one level of a parking facility.
- 5. The words "NO PARKING" shall be painted on the ground within each 8-foot (2438 mm) wide loading and unloading access aisle. This notice shall be painted in white letters no less than 12 inches (305 mm) high and located so that it is visible to traffic enforcement officials.

NOTE: See Figures 11A-2A, 11A-2B and 11A-2C.

1109A.8.7 Adjacent Parking. Parking spaces adjacent to accessible parking spaces shall not be considered loading and unloading access aisles.

1109A.8.8 Parking Signage. Each accessible parking space reserved for persons with disabilities shall be identified by a reflectorized sign permanently posted immediately adjacent to and visible from each stall or space, consisting of the "International Symbol of Accessibility" in white on a dark blue background. The sign shall not be smaller than 70 square inches (4516 mm²) in area and, when in a path of travel, shall be posted at a minimum height of 80 inches (2032 mm) from the bottom of the sign to the parking space finished grade. Signs may also be centered on the wall at the interior end of the parking space at a minimum height of 36 inches (914 mm) from the parking space finished grade, ground or sidewalk. Spaces complying with Section 1109A.8.6 shall have an additional sign stating "Van-Accessible" mounted below the symbol of accessibility.

**NOTE:** When assigned resident parking is provided, signage is not required except for unassigned or visitor parking spaces.

An additional sign shall also be posted in a conspicuous place at each entrance to off-street parking facilities or immediately adjacent to and visible from each stall or space. The sign shall not be less than 17 inches (432 mm) by 22 inches (559 mm) in size with lettering not less than 1 inch (25.4 mm) in height, and shall clearly and conspicuously state the following:

"Unauthorized vehicles parked in designated accessible spaces not displaying distinguishing placards or license plates issued for persons with disabilities may be towed away at owner's expense. Towed vehicles may be reclaimed at \_\_\_\_\_\_ or by telephoning \_\_\_\_\_\_."

Blank spaces are to be filled in with appropriate information as a permanent part of the sign.

In addition to the above requirements, the surface of each accessible parking space shall have a surface identification duplicating either of the following schemes:

- 1. By outlining or painting the stall or space in blue and outlining on the ground in the stall or space in white or suitable contrasting color the "International Symbol of Accessibility"; or,
- 2. By outlining the "International Symbol of Accessibility" in white on blue background. The "International Symbol of Accessibility" shall be located so that it is visible to a traffic enforcement officer when a vehicle is properly parked in the space and shall be 36 inches high by 36 inches wide (914 mm by 914 mm).

NOTE: See Figures 11A-2A, 11A-2B and 11A-2C.

#### SECTION 1110A — EXTERIOR ROUTES OF TRAVEL

1110A.1 Exterior Accessible Route. When a building or portion of a building is required to be accessible or adaptable, an accessible route shall be provided to all portions of the building, accessible building entrances and between the building and the public way. The accessible route shall be the most practical direct route and to the maximum extent feasible, coincide with the route for the general public and building residents. Exterior accessible routes shall be provided as follows:

- 1. Where more than one route of travel is provided, all routes shall be accessible.
- 2. At least one accessible route within the boundary of the site shall be provided from public transportation stops, accessible parking and accessible passenger loading and unloading zones, and public streets or sidewalks to the accessible building entrance they serve.
- 3. At least one accessible route shall connect accessible buildings, facilities, elements and spaces that are on the same site. Accessible routes shall be provided between accessible buildings and accessible site facilities when more than one building or facility is located on a site.
- 4. At least one accessible route shall connect accessible building or facility entrances with all accessible spaces, elements and covered multifamily dwelling units.
- 5. An accessible route shall connect at least one accessible entrance of each covered multifamily dwelling unit with exterior spaces and facilities that serve the dwelling unit.
- 6. Where elevators are provided for vertical access, all elevators shall be accessible. See Section 1124A.

NOTE: If the slope of the finished grade between covered multifamily dwellings and a public use or common use facility (including parking) exceeds 1 unit vertical in 12 units horizontal (8.33% slope), or where other physical barriers (natural or artificial) or legal restrictions, all of which are outside the control of the owner, prevent the installation of an accessible route, an acceptable alternative is to provide access by a vehicular route, provided:

- 1. There is accessible parking on an accessible route for at least 2% of the covered multifamily dwelling units, and
- 2. Necessary site provisions such as parking spaces and curb ramps are provided at the public use or common use facility.

1110A.2 Signs. At every primary public entrance and at every major junction where the accessible route diverges from the circulation path; along or leading to an accessible route, entrance or facility, there shall be a sign displaying the "International Symbol of Accessibility." Signs shall indicate the direction to accessible building entrances and facilities and shall comply with the requirements found in Sections 1143A.2 and 1143A.11.

1110A.3 Flooring. If carpet or carpet tile is used in a commonuse area or public-use area on a ground or floor surface, it shall

have firm backing or no backing. The maximum pile height shall be  $^{1}/_{2}$  inch (12.7 mm). Exposed edges of carpet shall be fastened to floor surfaces and have trim along the entire length of the exposed edge. Carpet edge trim shall comply with Section 1111A requirements for changes in level.

1110A.3.1 Recessed Doormats. Recessed doormats shall be adequately anchored to prevent interference with wheelchair traffic.

## SECTION 1111A — CHANGES IN LEVEL ON ACCESSIBLE ROUTES

1111A.1 Changes in Level Not Exceeding One-Half Inch. Abrupt changes in level along any accessible route shall not exceed  $^1/_2$  inch (12.7 mm). When changes in level do occur, they shall be beveled with a slope no greater than 1 unit vertical in 2 units horizontal (50% slope). Changes in level not exceeding  $^1/_4$  inch (6.35 mm) may be vertical.

1111A.2 Changes Greater Than One-Half Inch. Changes in level greater than  $^{1}/_{2}$  inch (12.7 mm) shall be made by means of a sloped surface not greater than 1 unit vertical in 20 units horizontal (5% slope), or a curb ramp, ramp, elevator or special access lift. Stairs shall not be part of an accessible route. When stairs are located along or adjacent to an accessible route they shall comply with Section 1115A for Exterior Stairways.

# SECTION 1112A — CURB RAMPS ON ACCESSIBLE ROUTES

1112A.1 General. Curb ramps within the boundary of the site shall be constructed at each corner of street intersections and where a pedestrian way crosses a curb. The preferred and recommended location for curb ramps is in the center of the crosswalk of each street corner. Where it is necessary to locate a curb ramp in the center of the curb return, the street surfaces shall be marked to identify pedestrian crosswalks, and the lower end of the curb ramp shall terminate within such crosswalk areas. Curb ramps do not require handrails.

1112A.2 Obstructions. Curb ramps shall be located or protected to prevent obstruction by parked cars. Built-up curb ramps shall be located so that they do not project into vehicular traffic lanes, parking spaces, or the adjacent loading and unloading access aisle.

1112A.3 Width of Curb Ramps. Curb ramps shall be a minimum of 48 inches (1219 mm) in width.

1112A.4 Diagonal Curb Ramps. If diagonal (or corner-type) curb ramps have returned curbs or other well-defined edges, such edges shall be parallel to the direction of pedestrian flow. The bottom of diagonal curb ramps shall have a 48 inch (1219 mm) minimum clear space as shown in Figures 11A-3A through 11A-3L. If diagonal curb ramps are provided at marked crossings, the 48 inch (1219 mm) clear space shall be within the markings (see Figures 11A-3A through 11A-3L). If diagonal curb ramps have flared sides, they shall also have at least a 24-inch-long (610 mm) segment of straight curb located on each side of the curb ramp and within the marked crossing (see Figures 11A-3A through 11A-3L).

1112A.5 Slope of Curb Ramps. The slope of curb ramps shall not exceed 1 unit vertical to 12 units horizontal (8.33% slope) and shall lie, generally, in a single sloped plane. Transitions from ramps to walks, gutters or streets shall be flush and free of abrupt changes. Maximum slopes of adjoining gutters, road surface immediately adjacent to the curb ramp or accessible route shall not

exceed 1 unit vertical to 20 units horizontal (5% slope) within 4 feet (1219 mm) of the top and bottom of the curb ramp.

If a curb ramp is located where pedestrians must walk across the ramp, then it shall have flared sides; the maximum slope of the flare shall be 1 unit vertical in 10 units horizontal (10% slope). Curb ramps with returned curbs may be used where pedestrians would not normally walk across the ramp. See Figures 11A-3A through 11A-3L.

1112A.6 Level Landing. A level landing 48 inches (1219 mm) deep shall be provided at the upper end of each curb ramp over its full width to permit safe egress from the ramp surface, or the slope of the fanned or flared sides of the curb ramp, shall not exceed 1 unit vertical to 12 units horizontal (8.33% slope).

1112A.7 Finish. The surface of each curb ramp and its flared sides shall be stable, firm and slip-resistant and shall be of contrasting finish from that of the adjacent sidewalk.

1112A.8 Border. All curb ramps shall have a grooved border 12 inches (305mm) wide at the level surface of the sidewalk along the top and each side approximately <sup>3</sup>/<sub>4</sub> inch (19mm) on center. All curb ramps constructed between the face of the curb and the street shall have a grooved border at the level surface of the sidewalk. See figures 11A-3A through 11A-3K.

1112A.9 (RESERVED)

## SECTION 1113A — WALKS AND SIDEWALKS ON AN ACCESSIBLE ROUTE

1113A.1 Width and Continuous Surface. Walks and sidewalks subject to this chapter shall have a continuous common surface, not interrupted by steps or by abrupt changes in level exceeding 1/2 inch (12.7 mm) (see Section 1111A.3).

1113A.1.1 Width. Walks and sidewalks shall be a minimum of 48 inches (1219 mm) in width, except that walks serving an individual dwelling unit in covered multifamily buildings may be reduced to 36 inches (914 mm) in clear width except at doors.

1113A.1.2 Surfaces. Surfaces shall be slip-resistant as follows:

- 1. Surfaces with a slope of less than 6 percent gradient shall be at least as slip-resistant as that described as a medium salted finish
- 2. Surfaces with a slope of 6 percent or greater gradient shall be slip-resistant.

1113A.1.3 Surface Cross Slopes. Surface cross slopes shall not exceed  $^1/_4$  inch (6.35 mm) per foot (2.083% slope) except when the enforcing agency finds that due to local conditions it creates an unreasonable hardship, the cross slope may be increased to a maximum of  $^1/_2$  inch (12.7 mm) per foot (4.2% slope) for distances not to exceed 20 feet (6096 mm).

1113A.2 Walks with Continuous Gradients. All walks on an accessible route with continuous gradients shall have level areas at least 60 inches (1524 mm) in length at intervals of at least every 400 feet (122 m).

1113A.3 Five Percent Gradient. When the slope in the direction of travel of any walk on an accessible route exceeds 1 unit vertical in 20 units horizontal (5% slope), it shall comply with the ramp provisions of Section 1114A.

1113A.4 Level Areas. Walks on an accessible route shall be provided with a level area not less than 60 inches by 60 inches (1524 mm by 1524 mm) at a door or gate that swings toward the walk, and not less than 48 inches wide by 44 inches (1219 mm by 1118)

mm) deep at a door or gate that swings away from the walk. See Section 1126A.3.2 for strike edge maneuvering space at doors or gate.

1113A.5 Smooth Surface. The bottom 10 inches (254 mm) of all doors and or gates except automatic and sliding doors or gates shall have a smooth, uninterrupted surface to allow the door or gate to be opened by a wheelchair footrest without creating a trap or hazardous condition. Where narrow frame doors are used, a 10-inch (254 mm) high smooth panel shall be installed on the push side of the door, which will allow the door to be opened by a wheelchair footrest without creating a trap or hazardous condition.

1113A.6 Gratings. Walks, sidewalks and pedestrian ways on an accessible route shall be free of gratings whenever possible. Grid openings in gratings located in the surface of any of these areas shall be limited to ½ inch (12.7 mm) in the direction of traffic flow.

EXCEPTIONS: 1. Where the enforcement agency determines that compliance with this section would create an unreasonable hardship, an exception may be granted when equivalent facilitation is provided.

2. This section shall not apply in those conditions where, due to legal or physical constraints, all or portions of the site of the project will not allow compliance with these building standards or equivalent facilitation on all or portions of one site without creating an unreasonable hardship.

# SECTION 1114A — EXTERIOR RAMPS AND LANDINGS ON ACCESSIBLE ROUTES

- 1114A.1 Width. The width of ramps shall be consistent with the requirements for exits in Chapter 10 of this code, but in no case shall the ramp width be less than the following:
- 1. Ramps serving accessible entrances to covered multifamily buildings where the ramp is the only exit discharge path and serves an occupant load of 300 or more shall have a minimum clear width of 60 inches (1524 mm).
- 2. Ramps serving accessible entrances in Group R Occupancies with an occupant load of 10 or less may be 36 inches (914 mm) in clear width.
- 3. All other ramps shall have a minimum clear width of 48 inches (1219 mm).
- 4. Handrails, curbs, wheel guides and or appurtenances shall not project into the required clear width of a ramp.

NOTE: See Section 1114A.6.2.4 for Handrail Projections.

- 1114A.2 Slope. The maximum slope of ramps on an accessible route shall be no greater than 1 unit vertical in 12 units horizontal (8.33% slope). Transitions from ramps to walks, gutters or streets shall be flush and free of abrupt changes.
- 1114A.2.1 Cross slope. The cross slope of ramp surfaces shall be no greater than  $^{1}/_{4}$  inch (6.35 mm) per foot (2.083% slope).
- 1114A.3 Outdoor Ramps. Outdoor ramps, ramp landings and their approaches shall be designed so that water will not accumulate on the walking surface.
- 1114A.4 Landings. Ramp landings shall be level and comply with this section.
- 1114A.4.1 Location of landings. Landings shall be provided at the top and bottom of each ramp. Intermediate landings shall be provided at intervals not exceeding 30 inches (762 mm) of vertical rise and at each change of direction. Landings are not considered in determining the maximum horizontal distance of each ramp.

**NOTE:** Examples of ramp dimensions are:

	MAXIMUM RISE (Inches)	MAXIMUM HORIZONTAL PROJECTION (Feet)
SLOPE (GRADING %)	(x 25.4 for mm)	(x 304.8) for mm)
1:12 (8.33%)	30	30
1:15 (6.67%)	30	37.5
1:16 (6.25%)	30	40
1:20 (5.00%)	30	50

1114A.4.2 Size of top landings. Top landings shall not be less than 60 inches (1524 mm) wide. Top landings shall have a minimum length of not less than 60 inches (1524 mm) in the direction of the ramp run. See Section 1126A.3 for maneuvering clearances at doors

1114A.4.3 Landing width. The minimum width of bottom and intermediate landings shall not be less than the width of the ramp.

1114A.4.4 Encroachment of doors. Doors in any position shall not reduce the minimum dimension of the landing to less than 42 inches (1067 mm) and shall not reduce the required width by more than 3 inches (76.2 mm) when fully open. See Figure 11A-6D.

1114A.4.5 Strike edge extension. The width of the landing shall comply with Section 1126A.3 for strike edge extension and maneuvering space at doors.

1114A.4.6 Change of direction. Intermediate and bottom landings at a change of direction in excess of 30 degrees shall have a length in the direction of ramp run of not less than 72 inches (1829 mm). See Figures 11A-6C and 11A-6D.

1114A.4.7 Other intermediate landings. Other intermediate landings shall have a dimension in the direction of ramp run of not less than 60 inches (1524 mm). See Figure 11A-6C.

1114A.5 Ramp Height. Ramps more than 30 inches (762 mm) above the adjacent floor or ground and open on one or both sides shall be provided with guardrails as required by Section 509. Guardrails shall be continuous from the top of the ramp to the bottom of the ramp.

#### 1114A.6 Ramp Handrails.

1114A.6.1 Where required. Handrails shall be provided at each side of ramps when the slope exceeds 1 unit vertical in 20 units horizontal (5% slope). Handrails on all ramps shall be continuous.

#### EXCEPTIONS: 1. Curb ramps.

2. Ramps that serve an individual dwelling unit may have one handrail, except that ramps open on one or both sides shall have handrails provided on the open side or sides.

#### 1114A.6.2 Handrail configuration.

1114A.6.2.1 Handrail heights. The top of handrails shall be 34 to 38 inches (864 to 965 mm) above the ramp surface.

1114A.6.2.2 Handrail ends. Handrail ends shall be returned.

1114A.6.2.3 Handrail extension. Handrails shall extend a minimum of 12 inches (305 mm) beyond the top and bottom of the ramp. Where the extension creates a hazard, the termination of the extension shall be rounded or returned smoothly to floor, wall or post. See Figure 11A-5A.

1114A.6.2.4 Handrail projections. Handrails projecting from a wall shall have a space of  $1^{1}/2$  inches (38.1 mm) between the wall and the handrail. Handrails shall not reduce the required minimum clear width of ramps.

Handrails may be located in a recess if the recess is a maximum of 3 inches (76.2 mm) deep and extends at least 18 inches (457

mm) above the top of the rail. Any wall or other surface adjacent to the handrail shall be free of sharp or abrasive elements. See Figure11A-6B.

1114A.6.2.5 Handrail grips. The handgrip portion of handrails shall not be less than  $1^1/4$  inches (31.75 mm) nor more than 2 inches (50.8 mm) in cross-sectional dimension, or the shape shall provide an equivalent gripping surface. The handgrip portion of handrails shall have a smooth surface with no sharp corners. Edges shall have a minimum radius of 1/8 inch (3.17 mm). Handrails shall not rotate within their fittings. See Figure11A-6B.

**NOTE:** For public use areas, public accommodations, and housing which is publicly funded, see Chapter 11B, Division III, Section 1133B.5.5 for provisions of the Division of the State Architect, Access Compliance (DSA/AC).

- 1114A.7 Curbs and Wheel Guides. Ramps exceeding 10 feet (3048 mm) in length and ramp landings having a vertical drop exceeding 4 inches (101.6 mm) shall be provided with one of the following:
- 1. Guide curbs a minimum of 2 inches (50.8 mm) in height at each side; or
- 2. Wheel guide rails at each side, centered 2 to 4 inches (50.8 to 101.6 mm) above the surface of the ramp or ramp landing.

**EXCEPTION:** Ramps or ramp landings bounded by a wall or fence.

NOTE: See Figure 11A-5A

### SECTION 1115A — EXTERIOR STAIRWAYS ALONG ACCESSIBLE ROUTE

1115A.1 General. Exterior stairways serving floors or dwelling units required to be accessible shall comply with this section.

**NOTE:** This section shall not apply to exterior stairways serving floors or dwelling units not required to be accessible.

- 1115A.2 Open Risers. Open risers shall not be permitted along accessible routes.
- 1115A.3 Treads. All tread surfaces shall be slip-resistant. Treads shall have smooth, rounded or chamfered exposed edges, and no abrupt edges at the nosing (lower front edge).
- 1115A.4 Nosing. Nosing shall not project more than  $1^{1}/_{2}$  inches (38.1 mm) past the face of the riser below. Risers shall be sloped or the underside of the nosing shall have an angle not less than 60 degrees from the horizontal. See Figure11A-6A.
- 1115A.5 Striping for the Visually Impaired. Where stairways occur outside a building along accessible routes, the upper approach and all treads shall be marked by a strip of clearly contrasting color at least a minimum of 2 inches (50.8 mm) wide to a maximum of 4 inches (101.6 mm) wide and placed parallel to and not more than 1 inch (25.4 mm) from the nose of the step or landing to alert the visually impaired. The strip shall be of a material that is at least as slip resistant as the treads of the stair. A painted strip shall be acceptable.

### 1115A.6 Exterior Stairway Handrails.

1115A.6.1 Where required. Stairways shall have handrails on each side, and every stairway required to be more than 88 inches (2235 mm) in width shall be provided with not less than one intermediate handrail for each 88 inches (2235 mm) of required width. Intermediate handrails shall be located equidistant from the sides of the stairway.

EXCEPTION: Stairways serving an individual dwelling unit may have one handrail, except that stairways open on one or both sides shall have handrails on the open side or sides.

### 1115A.6.2 Handrail configuration.

- 1115A.6.2.1 Handrail heights. The top of handrails shall be 34 to 38 inches (864 to 965 mm) above the nosing of the treads.
- 1115A.6.2.2 Handrail ends. Ends shall be returned or shall terminate in newel posts or safety terminals.
- 1115A.6.2.3 Handrail extension. Handrails shall extend a minimum of 12 inches (305 mm) beyond the top nosing and 12 inches (305 mm), plus the tread width, beyond the bottom nosing. Where the extension creates a hazard, the termination of the extension shall be rounded or returned smoothly to floor, wall or post. Where the stairs are continuous from landing to landing, the inner rail shall be continuous and need not extend out into the landing. See Figures 11A-6A and 11A-6E.

1115A.6.2.4 Handrail projections. Handrails projecting from a wall shall have a space of  $1^{1}/_{2}$  inches (38.1 mm) between the wall and the handrail.

Handrails may be located in a recess if the recess is a maximum of 3 inches (76.2 mm) deep and extends at least 18 inches (457 mm) above the top of the rail. Any wall or other surface adjacent to the handrail shall be free of sharp or abrasive elements. See Figure 11A-6B.

1115A.6.2.5 Handrail grips. The handgrip portion of handrails shall not be less than  $1^1/4$  inches (31.75 mm) nor more than 2 inches (50.8 mm) in cross-sectional dimension, or the shape shall provide an equivalent gripping surface. The handgrip portion of handrails shall have a smooth surface with no sharp corners. Edges shall have a minimum radius of 1/8 inch (3.17 mm). Handrails shall not rotate within their fittings. See Figure 11A-6B.

**NOTE:** For public use areas, public accommodations, and housing which is publicly funded, see Chapter 11B, Division III, Section 1133B.4.2.6 for provisions of the Division of the State Architect, Access Compliance (DSA/AC).

### SECTION 1116A — HAZARDS ON ACCESSIBLE ROUTES

1116A.1 Warning Curbs. Abrupt changes in level exceeding 4 inches (101.6 mm) in vertical dimension, such as changes in level at planters or fountains located in or adjacent to walks, sidewalks or other pedestrian ways, shall be identified by curbs or other approved barriers projecting at least 6 inches (152.4 mm) in height above the walk or sidewalk surface to warn the blind of a potential drop-off.

**EXCEPTIONS:** 1. Between a walk or sidewalk and an adjacent street or driveway.

- 2. When a guardrailor handrail is provided with a wheel guide centered 2 to 4 inches (50.8 to 101.6 mm) above the surface of the walk or sidewalk.
- 1116A.2 Headroom Clearance. Walks, pedestrian ways and other circulation spaces which are part of the required egress system shall have a minimum clear headroom of 84 inches (2134 mm). Other walks, pedestrian ways and circulation spaces shall have a minimum clear headroom of 80 inches (2032 mm). If the vertical clearance of an area adjoining an accessible route is reduced to less than 80 inches (2032 mm) nominal dimension, a guardrail or other barrier having its leading edge at or below 27 inches (686 mm) above the finished floor shall be provided. See Figure 11A-1B.

EXCEPTION: Doorways and archways less than 24 inches (610 mm) in depth may have a minimum clear headroom of 80 inches (2032 mm) nominal. See Section 1126A.

1116A.3 Overhanging Obstructions. Any obstruction that overhangs a pedestrian way shall be a minimum of 80 inches (2032 mm) above the walking surface as measured from the bottom of the obstruction. Where a guy support is used parallel to a path of travel, including, but not limited to, sidewalks, a guy brace, sidewalk guy or similar device shall be used to prevent an overhanging obstruction (see Section 1116A.2 for required headroom clearance).

1116A.4 Free-Standing Signs. Wherever signs mounted on posts or pylons protrude from the post or pylons and the bottom edge of the sign is 80 inches (2032 mm) above the finished floor or ground level, the edges of such signs shall be rounded or eased and the corners shall have a minimum radius of .125 inches (see Section 1116A.2 for required headroom clearance).

1-134.12 OCTOBER 12, 2006 SUPPLEMENT

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### **Division III—BUILDING FEATURES**

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### SECTION 1117A — GENERAL REQUIREMENTS FOR ACCESSIBLE ENTRANCES, EXITS, INTERIOR ROUTES OF TRAVEL AND FACILITY ACCESSIBILITY

**NOTE:** In addition to provisions of this division, interior routes of travel that provide access to, or egress from, buildings for persons with disabilities shall also comply with Chapter 10.

- 1117A.1 General. When buildings are required to be accessible, building facilities shall be accessible as provided in this division. Where specific floors of a building are required to be accessible, the requirements of this division shall apply only to the facilities located on accessible floors.
- 1117A.2 Primary Entrances and Exterior Exit Doors. All primary entrances and exterior ground-floor exit doors to buildings and facilities on accessible routes shall be accessible to persons with disabilities.
- 1117A.3 Separate Dwelling Unit Entrances. When a ground-floor dwelling unit of a building has a separate entrance, each such ground-floor dwelling unit shall be served by an accessible route, except where the terrain or unusual characteristics of the site prohibit an accessible route. See Section 1150A for site impracticality tests.
- 1117A.4 Multiple Entrances. Only one entrance to covered multifamily buildings is required to be accessible to any one ground floor of a building, except in cases where an individual dwelling unit has a separate exterior entrance. Where the building contains clusters of dwelling units with each cluster sharing a different exterior entrance, more than one entrance may be required to be accessible, as determined by analysis of the site. In every case, the accessible entrance shall be on an accessible route to the covered dwelling units it serves.

### SECTION 1118A — EGRESS AND AREAS FOR EVACUATION ASSISTANCE [FOR SFM]

1118A.1 General. In buildings or portions of buildings required to be accessible, accessible means of egress shall be provided in the same number as required for exits by Chapter 10. When an exit required by Chapter 10 is not accessible, an area for evacuation assistance shall be provided. Areas for evacuation assistance shall comply with the requirements of this code and shall adjoin an accessible route of travel complying with this code.

**EXCEPTIONS: 1.** Areas of evacuation assistance are not required in buildings or facilities having a supervised automatic sprinkler system.

2. Areas of evacuation assistance are not required in alterations of existing buildings except when the alteration or addition is subject to the provisions of this chapter as specified in Section 1102A.2.

### 1118A.2 Areas for Evacuation Assistance.

- 1118A.2.1 Location and construction. An area for evacuation assistance shall be one of the following:
- 1. A portion of a stairway landing within a smoke proof enclosure, complying with Section 1005.3.3.
- 2. A portion of an exterior exit balcony located immediately adjacent to an exit stairway when the exterior exit balcony complies with Section 1006.3. Openings to the exterior of the building located within 20 feet (6096 mm) of the area for evacuation assistance shall be protected with fire assemblies having a three-fourths-hour fire-protection rating.
- 3. A portion of a one-hour fire-resistive corridor complying with Section 1004.3.4 located immediately adjacent to an exit enclosure.

- 4. A vestibule located immediately adjacent to an exit enclosure and constructed to the same fire resistive standards as required by Section 1004.3.4.
- 5. A portion of a stairway landing within an exit enclosure which is vented to the exterior and is separated from the interior of the building by not less than one-hour fire-resistive door assemblies.
- 6. When approved by the building official, an area or room, which is separated from other portions of the building by a smoke barrier. Smoke barriers shall have a fire-resistive rating of not less than one hour and shall completely enclose the area or room. Doors in the smoke barrier shall be tight fitting smoke- and draft-control assemblies having a fire-protection rating of not less than 20 minutes and shall be self-closing or automatic closing. The area or room shall be provided with an exit directly to an exit enclosure. When the room or area exits into an exit enclosure which is required to be of more than one-hour fire-resistive construction, the room or area shall have the same fire-resistive construction, including the same opening protection, as required for the adjacent exit enclosure.
  - 7. An elevator lobby complying with Section 1118A.3.
- 1118A.2.2 Size. Each area for evacuation assistance shall provide at least two accessible areas that are not less than 30 inches by 48 inches (762 mm by 1219 mm). The area for evacuation assistance shall not encroach on any required exit width. The total number of such 30-inch by 48-inch (762 mm by 1219 mm) areas per story shall not be less than one for every 200 persons of calculated occupant load served by the area for evacuation assistance.

EXCEPTION: The building official may reduce the minimum number of 30-inch by 48-inch (762 mm by 1219 mm) areas to one for each area for evacuation assistance on floors where the occupant load is less than 200.

1118A.2.3 Adjacent stairway width. Each stairway adjacent to an area for evacuation assistance shall have a minimum clear width of 48 inches (1219 mm) between handrails.

### 1118A.2.4 Two-way communication.

- 1118A.2.4.1 Communication and location. A telephone with controlled access to a public telephone system or another method of two-way communication shall be provided between each area of refuge and the primary entry. The fire department may approve a location other than the primary entry.
- 1118A.2.4.2 Visible and audible communication method. A method of two-way communication with both visible and audible communication shall be provided between each area of evacuation assistance and the primary entry. A button in the area of rescue assistance shall activate both a light in the area of rescue assistance indicating that rescue has been requested and a light at the primary entry indicating that rescue is being requested. A button at the primary entry shall activate both a light at the primary entry and a light in the area of rescue assistance indicating that the request has been received.
- 1118A.2.5 Identification. Each area for evacuation assistance shall be identified by a sign with the "International Symbol of Accessibility" and text that clearly reads, "AREA FOR EVACUATION ASSISTANCE." The sign shall be illuminated when exit sign illumination is required. In each area for evacuation assistance, instructions on the use of the area under emergency conditions shall be posted adjoining the two-way communication system.
- 1118A.3 Area for Evacuation Assistance, High-rise Alternative. Within a building of any height or occupancy constructed in accordance with the requirements of Sections 403.1 through 403.10, an area for evacuation assistance may be located in the elevator lobby when:

- 1. The area for evacuation assistance complies with the requirements for size, two-way communication and identification as specified in Section 1118A.2; and
- 2. Elevator shafts and adjacent lobbies are pressurized as required for smoke-proof enclosures in Section 1005.3.3. Such pressurization system shall be activated by smoke detectors on each floor located in a manner approved by the building official. Pressurization equipment and its ductwork within the building shall be separated from other portions of the building by a minimum two-hour fire-resistive construction.
- 1118A.4 Emergency Warning Systems/Accessibility Requirements. Emergency warning systems as part of the fire-alarm system shall be designed and installed in accordance with NFPA 72 as amended in Chapter 35.
- 1118A.5 Emergency Egress. Accessible routes serving any accessible space or element shall also serve as a means of egress for emergencies or connect to an accessible place of refuge. Such accessible routes and places of refuge shall comply with the requirements established by the enforcement agency.

### SECTION 1119A — INTERIOR ROUTES OF TRAVEL

- 1119A.1 General. When a building or portion of a building is required to be accessible or adaptable, an accessible route shall be provided to all portions of the building, accessible building entrances and to covered multifamily dwelling units. The accessible route shall, to the maximum extent feasible, coincide with the route for the general public and other building residents. Accessible routes shall not pass through kitchens, storage rooms, restrooms, closets or other spaces used for similar purposes except within an individual dwelling unit. Accessible routes shall be provided as follows:
- 1. Where more than one route of travel is provided, all routes shall be accessible.
- 2. At least one accessible route shall connect accessible building or facility entrances with all accessible spaces, elements and covered multifamily dwelling units.
- 3. An accessible route shall connect at least one accessible primary entrance of each covered multifamily dwelling unit with interior and exterior spaces and facilities that serve the unit.
- 4. Where elevators are provided for vertical access, all elevators shall be accessible.
- 1119A.2 Flooring. If carpet or carpet tile is used in a commonuse area or public-use area on a ground or floor surface, it shall have firm backing or no backing. The maximum pile height shall be  $^{1}/_{2}$  inch (12.7 mm). Exposed edges of carpet shall be fastened to floor surfaces and have trim along the entire length of the exposed edge. Carpet edge trim shall comply with Section 1111A requirements for changes in level.
- 1119A.2.1 Recessed doormats. Recessed doormats shall be adequately anchored to prevent interference with wheelchair traffic.

### SECTION 1120A — INTERIOR ACCESSIBLE ROUTES

**NOTE:** For the purpose of this section, interior accessible routes shall include but not be limited to corridors, hallways, exit balconies, and covered or enclosed walkways.

1120A.1 Widths. Interior accessible routes serving an occupant load of 10 or more shall not be less than 44 inches (1118 mm) in width. Interior accessible routes serving an occupant load of less than 10 shall not be less than 36 inches (914 mm) in width.

If a person in a wheelchair must make a turn around a corner or an obstruction, the minimum clear width of the accessible route shall be as shown in Figure 11A-1C.

- 1120A.2 Interior Accessible Routes Over 200 Feet (60960 mm). Interior accessible routes that exceed 200 feet (60960 mm) in length shall:
  - 1. Have minimum clear width of 60 inches (1524 mm); or
- 2. Have at a central location, a 60-inch by 60-inch (1524 mm by 1524 mm) minimum wheelchair turning space or passing alcove: or
- 3. Have at a central location, an intervening cross or tee that is a minimum of 44 inches (1118 mm) in width; or

NOTE: See Figure 11A-1L

1120A.3 Changes in Elevation. Interior accessible routes which have changes in elevation shall be transitioned and comply with Section 1121A or 1122A.

EXCEPTION: Doors and thresholds as provided in Section 1126A.

### SECTION 1121A — CHANGES IN LEVEL ON ACCESSIBLE ROUTES

1121A.1 Changes in Level Not Exceeding One-Half Inch. Abrupt changes in level along any accessible route shall not exceed  $^1/_2$  inch (12.7 mm). When changes in level do occur, they shall be beveled with a slope no greater than 1 unit vertical in 2 units horizontal (50% slope). Changes in level not exceeding  $^1/_4$  inch (6.35 mm) may be vertical.

1121A.2 Changes Greater Than One-Half Inch. Changes in level greater than 1/2 inch (12.7 mm) shall be made by means of a sloped surface not greater than 1 unit vertical in 20 units horizontal (5% slope), or a curb ramp, ramp, elevator or special access lift. When stairs are located along or adjacent to an accessible route they shall comply with Section 1123A for Interior Stairways.

### SECTION 1122A — INTERIOR RAMPS AND LANDINGS ON ACCESSIBLE ROUTES

- 1122A.1 Width. The width of ramps shall be consistent with the requirements for exits in Chapter 10 of this code, but in no case shall the ramp width be less than the following:
- 1. Ramps serving accessible entrances to covered multifamily buildings where the ramp is the only exit discharge path and serves an occupant load of 300 or more shall have a minimum clear width of 60 inches (1524 mm).
- 2. Ramps serving accessible entrances in Group R Occupancies with an occupant load of 10 or less may be 36 inches (914 mm) in clear width.
- 3. All other ramps shall have a minimum clear width of 48 inches (1219 mm).
- 4. Handrails, curbs, wheel guides and/or appurtenances shall not project into the required clear width of a ramp.

NOTE: See Section 1122A.5.2.4 for Handrail Projections.

- 1122A.2 Slope. The maximum slope of ramps on an accessible route, shall be no greater than 1 unit vertical in 12 units horizontal (8.33% slope).
- 1122A.2.1 Cross Slope. The cross slope of ramp surfaces shall not exceed  $^{1}/_{4}$  inch (6.35 mm) per foot (2.083% slope).
- 1122A.3 Landings. Ramp landings shall be level and comply with this section.

1122A.3.1 Location of landings. Landings shall be provided at the top and bottom of each ramp. Intermediate landings shall be provided at intervals not exceeding 30 inches (762 mm) of vertical rise and at each change of direction. Landings are not considered in determining the maximum horizontal distance of each ramp.

**NOTE:** Examples of ramp dimensions are:

	MAXIMUM RISE (Inches)	MAXIMUM HORIZONTAL PROJECTION (Feet)		
SLOPE (GRADING %)	(x 25.4 for mm)	(x 304.8) for mm)		
1:12 (8.33%)	30	30		
1:15 (6.67%)	30	37.5		
1:16 (6.25%)	30	40		
1:20 (5.00%)	30	50		

1122A.3.2 Size of top landings. Top landings shall not be less than 60 inches (1524 mm) wide. Top landings shall have a minimum length of not less than 60 inches (1524 mm) in the direction of the ramp run. See Section 1126A.3 for maneuvering clearances at doors. See Figure 11A-6C.

1122A.3.3 Landing width. The minimum width of bottom and intermediate landings shall not be less than the width of the ramp.

1122A.3.4 Encroachment of doors. Doors in any position shall not reduce the minimum dimension of the landing to less than 42 inches (1067 mm) and shall not reduce the required width by more than 3 inches (76.2 mm) when fully open. See Figure 11A-6d.

1122A.3.5 Strike edge extension. The width of the landing shall comply with Section 1126A.3 for maneuvering clearances at doors.

1122A.3.6 Change of direction. Intermediate and bottom landings at a change of direction in excess of 30 degrees shall have a length in the direction of ramp run of not less than 72 inches (1829 mm). See Figures 11A-6C and 11A6D.

1122A.3.7 Other intermediate landings. Other intermediate landings shall have a dimension in the direction of ramp run of not less than 60 inches (1524 mm). See Figure 11A-6C.

1122A.4 Ramp Height. Ramps more than 30 inches (762 mm) above the adjacent floor or ground and open on one or both sides shall be provided with guardrails as required by Section 509. Guardrails shall be continuous from the top of the ramp to the bottom of the ramp.

### 1122A.5 Ramp Handrails.

1122A.5.1 Where required. Handrails shall be provided at each side of ramps when the slope exceeds 1 unit vertical in 20 units horizontal (5% slope). Handrails on all ramps shall be continuous.

### EXCEPTIONS: 1. Curb ramps.

2. Ramps that serve an individual dwelling unit may have one handrail, except that ramps open on one or both sides shall have handrails provided on the open side or sides.

### 1122A.5.2 Handrail configuration.

1122A.5.2.1 Handrail heights. The top of handrails shall be 34 to 38 inches (864 to 965 mm) above the ramp surface.

1122A.5.2.2 Handrail ends. Handrail ends shall be returned.

1122A.5.2.3 Handrail extension. Handrails shall extend a minimum of 12 inches (305 mm) beyond the top and bottom of the ramp. Where the extension creates a hazard, the termination of the

extension shall be rounded or returned smoothly to floor, wall or post. See Figure 11A-5A.

1122A.5.2.4 Handrail projections. Handrails projecting from a wall shall have a space of  $1^{1}/_{2}$  inches (38.1 mm) between the wall and the handrail.

Handrails may be located in a recess if the recess is a maximum of 3 inches (76.2 mm) deep and extends at least 18 inches (457 mm) above the top of the rail. Any wall or other surface adjacent to the handrail shall be free of sharp or abrasive elements. See Figure 11A-6B.

1122A.5.2.5 Handrail grips. The handgrip portion of handrails shall not be less than  $1^1/4$  inches (31.75 mm) nor more than 2 inches (50.8 mm) in cross-sectional dimension or the shape shall provide an equivalent gripping surface. The handgrip portion of handrails shall have a smooth surface with no sharp corners. Edges shall have a minimum radius of 1/8 inch (3.17 mm). Handrails shall not rotate within their fittings. See Figure 11A-6B.

**NOTE:** For public use areas, public accommodations, and housing which is publicly funded, see Chapter 11B, Division III, Section 1133B.5.5 for provisions of the Division of the State Architect, Access Compliance (DSA/AC).

1122A.6 Curbs and Wheel Guides. Ramps exceeding 10 feet (3048 mm) in length, and ramp landings having a vertical drop exceeding 4 inches, shall be provided with one of the following:

1. Guide curbs a minimum of 2 inches (50.8 mm) in height at each side; or

2. Wheel guide rails at each side, centered 2 to 4 inches (50.8 to 101.6 mm) above the surface of the ramp or ramp landing.

EXCEPTION: Ramps or ramp landings bounded by a wall or fence.

NOTE: See Figure 11A-5A.

### SECTION 1123A — INTERIOR STAIRWAYS ALONG ACCESSIBLE ROUTES

1123A.1 General. Interior stairways serving floors or dwelling units required to be accessible shall comply with this section.

**NOTE:** This section shall not apply to interior stairways serving floors or dwelling units not required to be accessible.

1123A.2 Open Risers. Open risers shall not be permitted along accessible routes.

1123A.3 Treads. All tread surfaces shall be slip-resistant. Treads shall have smooth, rounded or chamfered exposed edges, and no abrupt edges at the nosing (lower front edge).

1123A.4 Nosing. Nosing shall not project more than  $1^{1}/_{2}$  inches (38.1 mm) past the face of the riser below. Risers shall be sloped or the underside of the nosing shall have an angle not less than 60 degrees from the horizontal. See Figure 11A-6A.

1123A.5 Striping for the Visually Impaired. The upper approach and the lower tread of each stair along routes required to be accessible shall be marked by a strip of clearly contrasting color at least a minimum of 2 inches (50.8 mm) wide to a maximum of 4 inches (101.6 mm) wide placed parallel to, and not more than 1 inch (25.4 mm) from, the nose of the step or landing to alert the visually impaired. The strip shall be of material that is at least as slip resistant as the other treads of the stair. A painted strip shall be acceptable.

### 1123A.6 Interior Stairway Handrails.

1123A.6.1 Where required. Stairways shall have handrails on each side, and every stairway required to be more than 88 inches (2235 mm) in width shall be provided with not less than one inter-

mediate handrail for each 88 inches (2235 mm) of required width. Intermediate handrails shall be located equidistant from the sides of the stairway.

**EXCEPTION:** Stairways serving an individual dwelling unit may have one handrail, except that stairways open on one or both sides shall have handrails on the open side or sides.

### 1123A.6.2 Handrail configuration.

1123A.6.2.1 Handrail heights. The top of handrails shall be 34 to 38 inches (864 to 965 mm) above the nosing of the treads.

1123A.6.2.2 Handrail ends. Ends shall be returned or shall terminate in newel posts or safety terminals.

1123A.6.2.3 Handrail extension. Handrails shall extend a minimum of 12 inches (305 mm) beyond the top nosing and 12 inches (305 mm), plus the tread width, beyond the bottom nosing. Where the extension creates a hazard, the termination of the extension shall be rounded or returned smoothly to floor, wall or post. Where the stairs are continuous from landing to landing, the inner rail shall be continuous and need not extend out into the landing. See Figures 11A-6A and 11A-6E.

1123A.6.2.4 Handrail projections. Handrails projecting from a wall shall have a space of  $1^{1}/_{2}$  inches (38.1 mm) between the wall and the handrail.

Handrails may be located in a recess if the recess is a maximum of 3 inches (76.2 mm) deep and extends at least 18 inches (457 mm) above the top of the rail. Any wall or other surface adjacent to the handrail shall be free of sharp or abrasive elements. See Figure 11A-6B.

1123A.6.2.5 Handrail grips. The handgrip portion of handrails shall not be less than  $1^1/4$  inches (31.75 mm) nor more than 2 inches (50.8 mm) in cross-sectional dimension, or the shape shall provide an equivalent gripping surface. The handgrip portion of handrails shall have a smooth surface with no sharp corners. Edges shall have a minimum radius of 1/8 inch (3.17 mm). Handrails shall not rotate within their fittings. See Figure 11A-6B.

**NOTE:** For public use areas, public accommodations and housing which is publicly funded, see Chapter 11B, Division III, Section 1133B.4.2.6 for provisions of the Division of the State Architect, Access Compliance (DSA/AC).

### SECTION 1124A — ELEVATORS AND SPECIAL ACCESS (WHEELCHAIR) LIFTS

1124A.1 General. Elevators provided in covered multifamily buildings shall be accessible and comply with this chapter, and Title 24, Part 7 of the California Code of Regulations.

EXCEPTION: Private elevators serving only one dwelling unit.

1124A.2 Location. Passenger elevators shall be located on a major accessible route, and provisions shall be made to ensure that they remain accessible and usable at all times that the building is occupied.

### 1124A.3 Size of Cab and Control Locations.

1124A.3.1 General. Elevators serving covered multifamily buildings shall be sized to accommodate a wheelchair in accordance with this section.

EXCEPTION: When the enforcing agency determines that compliance with any requirement of this section would create an unreasonable hardship, an exception to the requirement shall be granted when equivalent facilitation is provided, and where it can be demonstrated that a person using a wheelchair can enter and operate the elevator. 1124A.3.2 Car inside. The car inside shall allow for the turning of a wheelchair. The minimum clear distance between walls or between wall and door, excluding return panels, shall not be less than 80 inches by 54 inches (2032 mm by 1372 mm) for centeropening doors, and 68 inches by 54 inches (1727 mm by 1372 mm) for side-slide opening doors (see Figure 11A-7A). Minimum distance from wall to return panel shall not be less than 51 inches (1295 mm).

1124A.3.2.1 Door size. Elevator doors shall provide a minimum clear width of 36 inches (914 mm).

### 1124A.3.3 Car Controls.

1124A.3.3.1 Car control location. Elevator floor buttons shall be within 54 inches (1372 mm) above the finish floor for side approach and 48 inches (1219 mm) for front approach. Except for photoelectric tube bypass switches, emergency controls, including the emergency stop and alarm, shall be grouped in or adjacent to the bottom of the panel and shall be no lower than 35 inches (889 mm) from the floor. For multiple controls only, one set must comply with these height requirements. Floor buttons shall be provided with visual indicators to show when each call is registered. The visual indicators shall be extinguished when each call is answered.

**NOTE:** Where possible, a 48-inch (1219 mm) maximum height for elevator floor buttons is preferred.

1124A.3.3.2 Car control buttons. Passenger elevator car controls shall have a minimum dimension of  $^{3}$ /4 inch (19.05 mm) and shall be raised  $^{1}$ /8 inch (3.17 mm) plus or minus  $^{1}$ /32 inch (0.8 mm) above the surrounding surface.

Control buttons shall be illuminated, shall have square shoulders, and shall be activated by a mechanical motion that is detectable.

All control buttons shall be designated by a  $^{5}/_{8}$ -inch-minimum (15.87 mm), Arabic numeral, standard alphabet character, or standard symbol immediately to the left of the control button. A Braille symbol shall be located immediately below the numeral, character or symbol. A minimum clear space of  $^{3}/_{8}$  inch (9.5 mm) or other suitable means of separation shall be provided between rows of control buttons.

NOTE: See Figure 11A-7B.

The raised characters and symbols shall be white on a black background. Controls and emergency equipment identified by raised symbols shall include, but not be limited to, door open, door close, alarm bell, emergency stop and telephone. The call button for the main entry floor shall be designated by a raised star at the left of the floor designation.

1124A.3.4 Emergency telephone. The emergency telephone handset shall be positioned no higher than 48 inches (1219 mm) above the floor, and the handset cord shall be a minimum of 29 inches (737 mm) in length. If the telephone system is located in a closed compartment, the compartment door hardware shall be lever type conforming to the provisions of Section 1003.3.1.8. Emergency intercommunication shall not require voice communication.

1124A.4 Hall Call Buttons. Call operation buttons shall be centered 42 inches (1067 mm) above the floor. Buttons shall be a minimum of <sup>3</sup>/<sub>4</sub>-inch (19.05 mm) in size and shall be raised <sup>1</sup>/<sub>8</sub>-inch (3.17 mm) plus or minus <sup>1</sup>/<sub>32</sub>-inch (0.8 mm) above the surrounding surface. Visual indication shall be provided to show each call registered and extinguished when answered. Objects adjacent to, and below, hall call buttons shall not project more than 4 inches (101.6 mm) from the wall.

1124A.5 Minimum Illumination. The minimum illumination at the car controls threshold and the landing when the car and landing doors are open shall not be less than 5 foot-candles (54 lx).

1124A.6 Hall Lantern. A visual and audible signal shall be provided at each hoistway entrance indicating to the prospective passenger the car answering the call and its direction of travel as follows:

The visual signal for each direction shall be a minimum of  $2^{1}/2$  inches (63.5 mm) high by  $2^{1}/2$  inches (63.5 mm) wide, and visible from the proximity of the hall call button.

The audible signal shall sound once for the up direction and twice for the down direction or of a configuration which distinguishes between up and down elevator travel.

The center line of the fixture shall be located a minimum of 6 feet (1829 mm) in height from the lobby floor.

The use of in-car lanterns, located in or on the car doorjambs, visible from the proximity of the hall call buttons and conforming to the above requirements of this section shall or will be acceptable.

**NOTE:** The use of arrow shapes are preferred for visible signals.

### 1124A.7 Door Delay.

1124A.7.1 Hall call. The minimum acceptable time from notification that a car is answering a call (lantern and audible signal) until the doors of the car start to close shall be calculated by the following equations but shall be no less than 5 seconds:

T = D / (1.5 ft/s) or T = D / (445 mm/s)

Where T is the total time in seconds and D is the distance from a point in the lobby or landing area 60 inches (1524 mm) directly in front of the farthest call button controlling that car to the centerline of its hoistway door (see Figure 11A-7D). For cars with in-car lanterns, T begins when the lantern is visible from the vicinity of hall call buttons and an audible signal is sounded.

1124A.7.2 Door delay for car calls. The minimum acceptable time for doors to remain fully open after receiving a call shall not be less than 5 seconds.

1124A.8 Doorjamb Marking. All elevator hoistway entrances shall have raised floor number designations provided on both jambs. Characters shall be raised Arabic numerals a minimum of 2 inches (50.8 mm) in height with raised Braille symbols placed below the corresponding raised characters. The raised characters shall be on a contrasting background with the centerline of the characters 60 inches (1524 mm) from the floor. Braille symbols shall conform to Sections 1117B.5.5 and 1117B.5.6. On the grade level, a raised five pointed star shall be placed to the left of the raised character. The outside diameter of the star shall be 2 inches. Braille shall be placed below the corresponding raised characters. See Figure 11A-7C.

1124A.9 Door Protective and Reopening Devices. Doors closed by automatic means shall be provided with a door-reopening device that will function to stop and reopen a car door and adjacent hoistway door in case the car door is obstructed while closing.

This reopening device shall also be capable of sensing an object or person in the path of a closing door without requiring contact for activation at a nominal 5 inches and 29 inches (127 mm and 737 mm) above the floor.

Door-reopening devices shall remain effective for a period of not less than 20 seconds. After such an interval, the doors may close in accordance with the requirements of ANSI 17.1-86 and the American Society of Mechanical Engineers (ASME) document ASME 17.1-1990.

1124A.10 Operation and Leveling. The elevator shall be automatic and be provided with a self-leveling feature that will automatically bring the car to the floor landings within a tolerance of plus or minus  $^{1}/_{2}$  inch (12.7 mm) under rated loading to zero loading conditions. This self-leveling shall, within its zone, be entirely automatic and independent of the operating device and shall correct the overtravel or undertravel. The car shall also be maintained approximately level with the landing, irrespective of load.

The clearance between the car platform sill and the edge of the hoistway landing shall be no greater than  $1^{1}/4$  inches (31.75 mm).

1124A.11 Special Access (Wheelchair) Lifts. Special access wheelchair lifts may be provided between levels, in lieu of passenger elevators, when the vertical distance between landings, as well as the structural design and safeguards are as allowed by the State of California, the Department of Industrial Relations, Division of Occupational Safety and Health, and any applicable safety regulations of other administrative authorities having jurisdiction.

If lifts are provided, they shall be designed and constructed to facilitate unassisted entry, operation and exit from the lift, and shall comply with restrictions and enhancements of this section in conjunction with Sections 3093 to 3094.5, Part 7 of the California Code of Regulations, Title 24.

### SECTION 1125A — HAZARDS ON ACCESSIBLE ROUTES

1125A.1 Warning Curbs. Abrupt changes in level exceeding 4 inches (101.6 mm) in vertical dimension, such as changes in level at planters or fountains located in or adjacent to walks, halls, corridors, passageways, aisles, pedestrian ways and other circulation spaces shall be identified by curbs projecting at least 6 inches (152.4 mm) in height above the walk or sidewalk surface to warn the blind of a potential drop-off.

**EXCEPTION:** When a guardrail or handrail is provided with a wheel guide centered 2 to 4 inches (50.8 to 101.6 mm) above the surface of the walk or sidewalk.

1125A.2 Headroom Clearance. Walks, halls, corridors, passageways, aisles, pedestrian ways and other circulation spaces which are part of the required egress system shall have a minimum clear headroom of 84 inches (2134 mm). Other walks, pedestrian ways and circulation spaces shall have a minimum clear headroom of 80 inches (2032 mm). If the vertical clearance of an area adjoining an accessible route is reduced to less than 80 inches (2032 mm) nominal dimension, a guardrail or other barrier having its leading edge at or below 27 inches (686 mm) above the finished floor shall be provided. See Figure 11A-1B.

EXCEPTION: Doorways and archways less than 24 inches (610mm) in depth may have a minimum clear headroom of 80 inches (2032 mm) nominal. See Section 1126A.

1125A.3 Overhanging Obstructions. Any obstruction that overhangs a pedestrian way shall be a minimum of 80 inches (2032 mm) above the walking surface as measured from the bottom of the obstruction. Where a guy support is used parallel to a path of travel, including, but not limited to, sidewalks, a guy brace, sidewalk guy or similar device shall be used to prevent an overhanging obstruction (see Section 1125A.2 for required headroom clearance).

1125A.4 Free-Standing Signs. Wherever signs mounted on posts or pylons protrude from the posts or pylons and the bottom edge of the sign is less than 80 inches (2032 mm) above the finished floor or ground level, the edges of such signs shall be rounded or eased,

and the corners shall have a minimum radius of .125 inches (see Section 1125A.2 for required headroom clearance).

### SECTION 1126A — DOORS

- 1126A.1 Width and Height of Doors. Doorways which provide access to common use areas or covered multifamily dwellings shall comply with the following:
- 1. Permit the installation of a door not less than 36 inches (914 mm) in width, not less than 80 inches (2032 mm) in height and provide a clear width of not less than 32 inches (813 mm), measured with the door positioned at an angle of 90 degrees from its closed position.
  - 2. Be capable of opening at least 90 degrees.
- 3. A pair of doors, manual or automatic, must have at least one leaf which provides a clear width of not less than 32 inches (813 mm), measured with the door positioned at an angle of 90 degrees from its closed position.
- 4. The width of any component in the egress system shall not be less than the minimum width required by Section 1003.2.3.

Revolving doors shall not be used as a required entrance for persons with disabilities.

- 1126A.2 Level Floor or Landing. The floor or landing on each side of an exit door shall be level. See Chapter 10.
- 1126A.2.1 Thresholds and changes in elevation at doors. The floor or landing shall not be more than  $^{1}/_{2}$  inch (12.7 mm) lower than the top of the threshold of the doorway. See Figure 11A-8I.

Changes in level between  $^{1}/_{4}$  inch (6.35 mm) and  $^{1}/_{2}$  inch (12.7 mm) shall be beveled with a slope no greater than 1 unit vertical in 2 units horizontal (50% slope). Changes in level greater than  $^{1}/_{2}$  inch (12.7 mm) shall be accomplished by means of a ramp (see Section 1122A).

### 1126A.3 Maneuvering Clearances at Doors.

- 1126A.3.1 General. The level floor or landing of an exit door shall have a length in the direction of the door swing of at least 60 inches (1524 mm) and a length opposite the direction of the door swing of at least 44 inches (1118 mm) measured at right angles to the plane of the door in its closed position. (See Figures 11A-8D, 11A-8E and 11A-8F for maneuvering spaces at sliding doors).
- 1126A.3.2 Strike edge maneuvering space. The width of the level area on the side to which the door swings shall extend at least 24 inches (610 mm) past the strike edge of the door for exterior doors and at least 18 inches (457 mm) past the strike edge for interior doors.

**NOTE:** Twenty-four inches (610 mm) is preferred for strike-side clearance.

- 1126A.3.2.1 Front approach. The following provisions shall apply to swinging doors with front approach:
- 1. For pull side approach the level floor or landing shall extend in the direction of the door swing at least 60 inches (1524 mm). See Figure 11A-8A.
- 2. For push side approach the level floor or landing shall extend opposite the direction of the door swing at least 48 inches (1219 mm). See Figure 11A-8A.
- 3. Doors with push side approach having both a closer and a latch shall be provided with a clear and level area extending a minimum of 12 inches (305 mm) past the strike edge on the approach side of the door. See Figure 11A-8A.

- 1126A.3.2.2 Hinge side approach. The following provisions shall apply to swinging doors with hinge side approach:
- 1. Doors with pull side approach shall be provided with a level floor or landing not less than 60 inches (1524 mm) in depth. A clear and level area shall extend a minimum of 36 inches (914 mm) past the strike edge on the approach side of the door. See Figure 11A-8B.

EXCEPTION: Doors with pull side approach and a level floor or landing greater than 60 inches (1524 mm) in depth shall be provided with a clear and level area at least 24 inches (610 mm) past the strike edge of the door for exterior doors and at least 18 inches (457 mm) past the strike edge for interior doors

- 2. Doors with push side approach shall have a level floor or landing not less than 44 inches (1118 mm) in depth and shall be provided with a clear and level area extending a minimum of 54 inches (1372 mm) from the strike edge of the door jamb past the hinge side of the door. Doors with a latch and closer shall have a level floor or landing not less than 48 inches (1219 mm) depth at the push side of the door. See Figure 11A-8B.
- 1126A.3.2.3 Latch side approach. The following provisions shall apply to swinging doors with latch side approach:
- 1. Doors with pull side approach shall have a level floor or landing not less than 60 inches (1524 mm) in depth and shall be provided with a clear and level area extending a minimum of 24 inches (610 mm) past the strike edge on the approach side of the door. See Figure 11A-8C.

**EXCEPTION:** Doors serving individual covered multifamily dwelling units shall have a minimum landing depth of 44 inches (1118 mm), except that doors with a closer shall have a minimum landing depth of 54 inches (1372 mm).

- 2. Doors with push side approach shall have a level floor or landing not less than 44 inches (1118 mm) in depth and shall be provided with a clear and level area extending a minimum of 24 inches (610 mm) past the strike edge on the approach side of the door. Doors with a closer shall have a level floor or landing not less than 48 inches (1219 mm) depth at the push side of the door. See Figure 11A-8C.
- 1126A.3.3 Space between consecutive doors. The minimum space between two hinged or pivoted doors in series, serving other than a required exit stairway, shall provide a minimum of 48 inches (1219 mm) plus the width of the door swinging into the space. Doors in a series shall swing either in the same direction or away from the space between the doors. See Figure 11A-8G, and 11A-8H.

Where the door opens into a stair or smoke proof enclosure, the landing need not have a minimum length of 60 inches (1524 mm). See Figure 11A-8H.

- 1126A.4 Closer-Effort to Operate Doors. Maximum effort to operate doors shall not exceed  $8^1/2$  pounds (38 N) for exterior doors and 5 pounds (22 N) for interior doors, such pull or push effort being applied at right angles to hinged doors and at the center plane of sliding or folding doors. Compensating devices or automatic door operators may be utilized to meet these standards. When fire doors are required, the maximum effort to operate the door may be increased to the minimum allowable by the appropriate enforcement agency, not to exceed 15 pounds (66.7 N).
- 1126A.4.1 Door closer. If the door has a closer, then the sweep period of the closer shall be adjusted so that from an open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches (75 mm) from the latch, measured to the landing edge of the door.

1126A.5 Type of Lock or Latch. The type of latch and lock required for all doors shall be in accordance with Chapter 10, Section 1003.3.1.8.

1126A.6 Hand-Activated Door Hardware. Hand-activated door latching, locking and opening hardware shall be centered between 30 inches (762 mm) and 44 inches (1118 mm) above the floor. Latching and locking doors that are hand-activated and on an accessible route shall be operable with a single effort by levertype hardware, panic bars, push-pull activating bars or other hardware designed to provide passage without requiring the ability to grasp the opening hardware. Locked exit doors shall operate consistent with Section 1126A.4, in the direction of egress.

1126A.6.1 Lever type hardware. The lever or lever of actuated latches or locks shall be curved with a return to within  $^{1}/_{2}$  inch of the door to prevent catching on the clothing of persons during egress.

**EXCEPTION:** Group R and U Occupancies with an occupant load of 10 or less.

1126A.7 Smooth Surface. The bottom 10 inches (254 mm) of all doors and or gates shall have a smooth, uninterrupted surface to allow the door or gate to be opened by a wheelchair footrest without creating a trap or hazardous condition. Where narrow frame doors are used, a 10-inch (254 mm) high smooth panel shall be installed on the push side of the door, which will allow the door to be opened by a wheelchair footrest without creating a trap or hazardous condition. See Figure 11A-8J.

EXCEPTION: Automatic and sliding doors or gates.

### SECTION 1127A — COMMON USE FACILITIES

NOTE: For Public Use Facilities, see Chapter 11B of this code.

- 1127A.1 General. When provided, common use areas and facilities in covered multifamily housing developments shall be accessible to persons with physical disabilities. Common use facilities include, but are not limited to, lobbies, toilet and bathing facilities, laundry facilities, community rooms, club-houses, health and fitness facilities, game rooms and portions of common use tenant storage. All entrances, doors, fixtures and controls shall be on an accessible route. Facilities and fixtures required to be accessible shall comply with the following provisions:
- 1. **Doors.** Doors to accessible bathrooms shall comply with Section 1126A. Doors shall not swing into the floor space required for any fixture.
- 2. Clear floor space. All fixtures and controls shall be on an accessible route. Clear floor spaces at fixtures and controls, the accessible route and the turning space may overlap. This clear space shall comply with Sections 1127A.9.4 and 1127A.9.5.
- 3. Water closets. Where a toilet stall is provided, it shall comply with Section 1127A.2.1 or 1127A.2.2, and its water closet shall comply with Section 1127A.2.3.
- 4. Lavatory and mirrors. Where a lavatory and/or mirror is provided, it shall comply with Section 1127A.3 and/or 1127A.8.3.
- 5. Controls and dispensers. Where controls, dispensers, receptacles or other types of equipment are provided, at least one of each shall be on an accessible route and shall comply with Sections 1127A.8 and 1127A.9.5.
- 6. **Bathing and shower facilities.** Where bathtubs or showers are provided, at least one fixture of each type provided shall be accessible per room. For bathtubs, see Section 1127A.5.2. For showers, see Section 1127A.5.3.
- 7. Toilet facilities. Toilet facilities shall comply with Section 1127A.2.

- 8. Laundry facilities. Laundry facilities shall comply with Section 1127A.10.
- 9. Storage facilities. Storage facilities shall comply with Section 1127A.11.
- 10. Fixed or built-in seating, tables, and counters. Fixed or built-in seating, tables and counters shall comply with Section 1127A.12.
- 1127A.2 Toilet Facilities. When common use toilet facilities are provided for residents or guests, at least one percent of the total number of fixtures but not less than one of each type shall comply with this section.
- 1127A.2.1 Multiple-accommodation toilet facilities. Multiple-accommodation toilet facilities shall have the following:

NOTES: 1. See definition in Chapter 2.

- 2. See Figure 11A-9A.
- 1. Wheelchair clearance. A clear space measured from the floor to a height of 27 inches (686 mm) above the floor, within the sanitary facility room, of sufficient size to inscribe a circle with a diameter not less than 60 inches (1524 mm), or a clear space 56 inches by 63 inches (1422 mm by 1600 mm) in size. Other than the door to the accessible water closet compartment, a door, in any position, may encroach into this space by not more than 12 inches (305 mm).
- 2. Clear space at fixtures. Doors shall not swing into the floor space required for any fixture.
- 3. Accessible water closet compartment. A water closet fixture located in a compartment shall provide a minimum 28 inch (711 mm) wide clear space from a fixture, or a minimum 32 inch (813 mm) wide clear space from a wall at one side of the water closet. The other side of the water closet shall provide 18 inches (457 mm) from the centerline of the water closet to the wall. The stall shall be a minimum of 60 inches (1524 mm) wide. A minimum 48-inch (1219 mm) long clear space shall be provided in front of the water closet if the compartment has an end-opening door (facing the water closet). A minimum 60-inch (1524 mm) long clear space shall be provided in a compartment with the door located at the side.
- 4. **Grab bars.** Grab bars shall be installed in accordance with Section 1127A.4 and shall not project more than 3 inches (76.2 mm) into the clear spaces.
- 5. Compartment doors. Compartment doors shall comply with the following.
  - 5.1 The water closet compartment shall be equipped with a door that has an automatic-closing device, and shall have a clear, unobstructed opening width of 32 inches (813 mm) when located at the end and 34 inches (864 mm) when located at the side with the door positioned at an angle of 90 degrees from its closed position.
  - 5.2 When standard compartment doors are used, with a minimum 9-inch (228.6 mm) clearance for footrests underneath and a self-closing device, clearance at the strike edge as specified in Section 1126A.3.2 is not required.
  - 5.3 The inside and outside of the compartment door shall be equipped with a loop or U-shaped handle immediately below the latch. The latch shall be flip-over style, sliding, or other hardware not requiring the user to grasp or twist.
  - 5.4 Except for door-opening widths and door swings, a clear, unobstructed access of not less than 44 inches

- (1118 mm) shall be provided to water closet compartments designed for use by persons with disabilities, and the space immediately in front of a water closet compartment shall not be less than 48 inches (1219 mm) as measured at right angles to compartment door in its closed position.
- 6. Large toilet rooms. Where six or more stalls are provided within a multiple-accommodation toilet room, at least one stall shall comply with Section 1127A.2.1, Items 2 and 3. At least one additional stall shall be 36 inches (914 mm) wide with an outward swinging self-closing door and grab bars complying with Sections 1127A.4.3, 1127A.4.4 and 1127A.4.5 installed on each compartment side wall.
- 1127A.2.2 Single-accommodation toilet facilities. Single-accommodation toilet facilities shall comply with the following:
- 1. Wheelchair clearance. There shall be sufficient space in the toilet room for a wheelchair measuring 30 inches (762 mm) wide by 48 inches (1219 mm) long to enter the room and permit the door to close. There shall be in the room a clear floor space of at least 60 inches (1524 mm) in diameter, or a T-shaped space complying with Figure 11A-1D.
- 2. Encroachment of doors. Doors shall not encroach into the clear floor space specified in item 1 of this section by more than 12 inches (305 mm), except for the panel door to any water closet compartment. See Figure 11A-9B.
- 3. Accessible water closet. The water closet shall be located in a space which provides a minimum 28 inch (711 mm) wide clear space from a fixture or a minimum 32 inch (813 mm) wide clear space from a wall at one side. The other side shall provide 18 inches (457 mm) from the centerline of the water closet to the wall. A minimum 48 inches (1219 mm) of clear space shall be provided in front of the water closet.
- 4. **Grab bars.** Grab bars shall be installed in accordance with Section 1127A.4.
- 5. Accessible route. All doors, fixtures and controls shall be on an accessible route. The minimum clear width of an accessible route shall be 36 inches (914 mm) except at doors (see Section 1126A). If a person in a wheelchair must make a turn around an obstruction, the minimum clear width of the accessible route shall be as shown in Figure 11A-1C. See also Figure 11A-9B.
- 1127A.2.3 Water closets. Water closets required to be accessible shall comply with the following:
- 1. **Height.** The height of accessible water closets shall be a minimum of 17 inches (432 mm) to a maximum of 19 inches (483 mm) measured to the top of a maximum 2-inch (50.8 mm) high toilet seat
- 2. Controls. Controls shall be operable with one hand and shall not require tight grasping, pinching or twisting. Controls for the flush valves shall be mounted on the wide side of toilet areas, no more than 44 inches (1118 mm) above the floor. The force required to activate controls shall be no greater than 5 pound force (lbf) (22.2 N).
- 3. **Toilet seats.** Seats shall not be sprung to return to a lifted position.
- 1127A.2.4 Accessible urinals. Urinals required to be accessible shall comply with the following:
- 1. **Height and wall projection.** Urinals shall be floor mounted or wall hung. Where one or more wall hung urinals are provided, at least one with a rim projecting a minimum of 14 inches (356)

- mm) to a maximum of 17 inches (432 mm) from the wall and a maximum of 17 inches (432 mm) above the floor shall be provided.
- 2. Flush controls. Flush controls shall be operable with one hand, shall not require tight grasping, pinching or twisting of the wrist, and shall be mounted no more than 44 inches (1118 mm) above the floor. The force required to activate controls shall be no greater than 5 pound force (lbf) (22.2 N). Electronic automatic flushing controls are acceptable and preferable.
- 3. Clear floor space. Where urinals are provided, at least one shall have a clear floor space 30 inches by 48 inches (762 mm by 1219 mm) in front of the urinal to allow forward approach. This clear space shall comply with Sections 1127A.9.4 and 1127A.5.
- 1127A.3 Accessible Lavatories. When common use lavatories are provided for residents or guests, at least one, and not less than 1 percent of all lavatories, shall comply with the following:
- 1. **Location.** Lavatories shall be installed with the centerline of the fixture a minimum of 18 inches (457 mm) horizontally from an adjoining wall or fixture. The top of the fixture rim shall be a maximum of 34 inches (864 mm) above the finished floor.
- 2. Floor space. A clear maneuvering space at least 30 inches by 48 inches (762mm by 1219mm) shall be provided in front of accessible lavatories to allow forward approach. Such clear floor space shall adjoin or overlap an accessible route and shall not extend into the knee and toe space underneath the lavatory more than 19 inches (483 mm). This clear space shall comply with Section 1127A.9.5 for allowable reach ranges.
- 3. **Knee and toe space.** Knee and toe space (see Figure 11A-9D) shall be provided as follows:
  - 3.1 The knee space shall be at least 30 inches (762 mm) wide and 8 inches deep (203.2 mm).
  - 3.2 The knee space shall be at least 29 inches (737 mm) high at the front face and reducing to not less than 27 inches (686 mm) at a point 8 inches (203.2 mm) back from the front edge.
  - 3.3 Knee space required by this section shall be clear and unobstructed.
  - 3.4 The toe space required in this section shall be provided as follows:
    - 3.4.1 Shall be at least 30 inches (762 mm) wide and centered on the lavatory.
    - 3.4.2 Shall be at least 17 inches (432 mm) deep, measured from the front edge.
    - 3.4.3 Shall be at least 9 inches (228.6 mm) high from the floor.
- 4. **Finished floor.** The finished floor beneath the lavatory shall be extended to the wall.
- 5. Plumbing protection. Hot water and drain pipes accessible under lavatories shall be insulated or otherwise covered. There shall be no sharp or abrasive surfaces under lavatories.
- 6. Lavatory faucet controls. Faucet controls and operation mechanisms shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist.

The force required to activate controls shall be no greater than 5 pound force (lbf) (22.2N). Lever operated, push-type and electronically controlled mechanisms are examples of acceptable designs. Self-closing valves are allowed if the faucet remains open for at least 10 seconds.

- 1127A.4 Grab Bars, Tub and Shower Seats, Fasteners and Mounting Devices.
- 1127A.4.1 General. Grab bars, tub and shower seats, fasteners and mounting devices required by this chapter shall comply with this section.
- 1127A.4.2 Location. Grab bars which are located on each side, or on one side and the back, of the accessible toilet stall or compartment shall be securely attached and centered 33 inches (838 mm) above and parallel to the floor, except that, where a tank-type toilet obstructs placement at 33 inches (838 mm), the grab bar may be centered as high as 36 inches (914 mm). The space between the grab bar and objects below shall be a minimum of  $1^1/2$  inches (38.1 mm). Grab bars shall be at least 42 inches (1067 mm) in length with the front end positioned 24 inches (610 mm) in front of the water closet stool. Grab bars at the back shall not be less than 36 inches (914 mm) in length. See Figures 11A-9A and 11A-9B.
- 1127A.4.3 Diameter or width. The diameter or width of the gripping surfaces of a grab bar shall be  $1^1/4$  inches to  $1^1/2$  inches (31.75 mm to 38.1 mm) or of a shape that provides an equivalent gripping surface. If grab bars are mounted adjacent to a wall, the space between the wall and the grab bars shall be  $1^1/2$  inches (38.1 mm). See Figure 11A-9C.
- 1127A.4.4 Structural strength. The structural strength of grab bars, tub and shower seats, fasteners and mounting devices shall meet the following specifications:
- 1. Bending stress in a grab bar or seat induced by the maximum bending moment from the application of a 250-pound (1112 N) point load shall be less than the allowable stress for the material of the grab bar or seat.
- 2. Shear stress induced in a grab bar or seat by the application of a 250-pound (1112N) point load shall be less than the allowable shear stress for the material of the grab bar or seat, and if its mounting bracket or other support is considered to be fully restrained, then direct and torsional shear stresses shall not exceed the allowable shear stress.
- 3. Shear force induced in a fastener or mounting device from the application of a 250-pound (1112 N) point load shall be less than the allowable lateral load of either the fastener or mounting device or the supporting structure, whichever is the smaller allowable load.
- 4. Tensile force induced in a fastener by a direct tension force of a 250-pound (1112 N) point load, plus the maximum moment from the application of a 250-pound (1112 N) point load, shall be less than the allowable withdrawal load between the fastener and supporting structure.
  - 5. Grab bars shall not rotate within their fittings.
- **1127A.4.5** Surface. A grab bar and any wall or other surface adjacent to it shall be free of any sharp or abrasive elements. Edges shall have a minimum radius of  $\frac{1}{8}$  inch (3.17 mm).

### 1127A.5 Bathing Facilities.

- 1127A.5.1 General. When common use bathing facilities are provided for residents or guests, including showers, bathtubs or lockers, at least one of each type of fixture in each facility, and not less than 1 percent of all fixtures, shall comply with this section.
- 1127A.5.2 Bathtubs. Bathtubs required to be accessible shall comply with the following:
- 1. Floor space. Clear floor space at bathtubs shall be as shown in Figure 11A-9E.

- 2. **Seat.** An in-tub seat or a seat at the head end of the tub shall be provided as shown in Figures 11A-9E and 11A-9F. The structural strength of seats and their attachments shall comply with Section 1127A.4.4. Seats shall be mounted securely and shall not slip during use.
- 3. **Grab bars.** Grab bars complying with Sections 1127A.4.3, 1127A.4.4 and 1127A.4.5 shall be provided as shown in Figures 11A-9F and 11A-9G.
- 4. Controls. Faucets and other controls shall be located as shown in Figure 11A-9F. They shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist. The force required to activate controls shall be no greater than a 5-pound force (lbf) (22.2 N).
- 5. **Shower spray unit.** A shower spray unit with a hose at least 60 inches (1524 mm) long that can be used both as a fixed shower head and as a hand-held shower shall be provided.
- 6. **Bathtub enclosures.** If provided, enclosures for bathtubs shall not obstruct controls or transfer from wheelchairs onto bathtub seats or into tubs. Enclosures on bathtubs shall not have tracks mounted on their rims.
- 1127A.5.3 Showers. Showers required to be accessible shall comply with the following:
- 1. Size. Showers shall be consistent with one of the following: (1) 60 inches (1524 mm) minimum in width between wall surfaces and 30 inches (762 mm) minimum in depth with a full opening width on the long side; or (2) 42 inches (1067 mm) in width between wall surfaces and 48 inches (1219 mm) minimum in depth with an entrance opening of 42 inches (1067 mm); or (3) showers 60 inches (1524 mm) minimum in width may be 36 inches (914 mm) minimum in depth as long as the entrance opening width is a minimum 36 inches (914 mm).
- 2. **Thresholds.** When a threshold or recessed drop is permitted, it shall be a maximum of 1/2 inch (12.7 mm) in height and shall be beveled or sloped at an angle not exceeding 45 degrees (100 percent gradient) from the horizontal.
- 3. Multiple showers. Where, within the same functional area, two or more accessible showers are provided, there shall be at least one shower constructed opposite hand from the other or others (i.e., one left-hand control versus right-hand controls).
  - 4. Accessories. Shower accessories shall include:
    - 4.1 Water controls. Water controls of a single-lever design shall be located on the side wall of the compartment adjacent to the seat and operable with a maximum force of 5 lb (22.2N), mounted at 40 inches (1016 mm) [plus or minus 1 inch (25.4 mm) tolerance] above the shower floor. The centerline of the controls shall be within a reach range of no less than 18 inches (457mm) and no more than 24 inches (610 mm) from the rear edge of the seat.
    - 4.2 Hand-held sprayer unit. A flexible handheld sprayer unit with a hose at least 60 inches (1524 mm) long shall be provided within reach range of the seat at a distance not to exceed 27 inches (686 mm) horizontally measured from the rear seat edge to the centerline of the mounting bracket. This unit shall be mounted at a maximum height of 48 inches (1219 mm) [plus or minus 1 inch (25.4 mm) tolerance] above the shower floor.
    - 4.3 Sprayer unit alternative. Where accessible shower facilities are provided in areas subject to excessive vandalism, in lieu of providing the fixed flexible hose, two wall-mounted shower heads shall be installed. Each shower head shall be installed so that it can be operated

- independently of the other and shall have swivel angle adjustments, both vertically and horizontally. One shower head shall be located at a height of 48 inches (1219 mm) [plus or minus 1 inch (25.4 mm) tolerance] above the floor.
- 4.4 Floor slope. The maximum slope of the floor shall be 2 percent per foot in any direction. Where drains are provided, grate openings shall be a maximum of  $^{1}/_{4}$  inch (6.35 mm) and located flush with the floor surface.
- 5. Shower fixtures. Shower fixtures shall include:
  - 5.1 A folding seat located within 27 inches (686 mm) of the controls, mounted 18 inches (457 mm) above the floor, and with a minimum space of 1 inch (25.4 mm) and maximum space of 1 ½ inches (38.1 mm) allowed between the edge of the seat and any wall. When folded, the seat shall not extend more than 6 inches (152.4 mm) from the mounting wall. See Figures 11A-9H, 11A-9I, 11A-9J and 11A-9K.
  - 5.2 Grab bars located on walls adjacent to and opposite the seat. Grab bars shall comply with the diameter, loading and projection requirements of Sections 1127A.4.3, 1127A.4.4 and 1127A.4.5. Grab bars shall be mounted between a minimum of 33 inches (838 mm) and a maximum of 36 inches (914 mm) above the shower floor with an L-shaped grab bar mounted on walls opposite and adjacent to the front edge of the seat, but not extended to include that portion of wall over the seat. See Figure 11A-9H or 11A-9I.
- 6. Soap dish. When a soap dish is provided, it shall be located on the control wall at a maximum height of 40 inches (1016 mm) above the shower floor, and within reach limits from the seat.
- 7. Enclosures. Enclosures, when provided for shower stalls, shall not obstruct transfer from wheelchairs onto shower seats.

NOTE: See Figures 11A-9H, 11A-9I, 11A-9J and 11A-9K.

1127A.5.3.1 Open showers. Where no separate shower compartments are provided, the shower for persons with disabilities shall be located in a corner with L-shaped grab bars extending along two adjacent walls with a folding seat adjacent to the shower controls. See Figures 11A-9H, 11A-9I, 11A-9J and 11A-9K.

### 1127A.6 Lockers.

1127A.6.1 General. Where lockers are provided for residents or guests, at least one locker and not less than 1 percent of all lockers shall be accessible to persons with disabilities. A path of travel not less than 36 inches (914 mm) in clear width shall be provided to these lockers. See Section 1127A.9 for required clear space, allowable reach ranges, and requirements for control and operating mechanisms.

### 1127A.7 Signs.

- 1127A.7.1 General. All accessible toilet and bathing facilities shall be identified by the "International Symbol of Accessibility." Signs need not be provided for facilities within a dwelling unit or guest room.
- 1127A.7.2 Identification symbols. Doorways leading to men's sanitary facilities shall be identified by an equilateral triangle \(^1/4\) inch thick (6.4 mm) with edges 12 inches (305 mm) long and a vertex pointing upward. Women's sanitary facilities shall be identified by a circle, \(^1/4\) inch thick (6.4 mm) and 12 inches (305 mm) in diameter. Unisex sanitary facilities shall be identified by a circle \(^1/4\) inch thick (6.4 mm), 12 inches (305 mm) in diameter with a \(^1/4\)

inch thick (6.4 mm) triangle superimposed on the circle and within the 12-inch (305 mm) diameter. These geometric symbols shall be centered on the door at a height of 60 inches (1524 mm), and their color and contrast shall be distinctly different from the color and contrast of the door.

**NOTE:** See also Section 1143A.10 for additional signage requirements applicable to sanitary facilities.

### 1127A.8 Toilet Room Fixtures and Accessories.

- 1127A.8.1 Towel, sanitary napkins, waste receptacles. Where towel, sanitary napkins, waste receptacles, and other similar dispensing and disposal fixtures are provided, at least one of each type shall be located with all operable parts, including coin slots, within 40 inches (1016 mm) from the finished floor. Controls and operating mechanisms shall comply with Section 1127A.9.6.4.
- 1127A.8.2 Toilet tissue dispensers. Toilet tissue dispensers shall be located on the wall within 12 inches (305 mm) of the front edge of the toilet seat. Dispensers that control delivery or that do not permit continuous paper flow shall not be used. See Figure 11A-9B.
- 1127A.8.3 Mirrors. Where mirrors are provided, at least one shall be accessible. Mirrors shall be mounted with the bottom edge no higher than 40 inches (1016 mm) from the floor.
- 1127A.9 Space Allowances and Reach Ranges in Common Use Areas
- 1127A.9.1 Wheelchair passage width. The minimum clear width for single wheelchair passage shall be 36 inches (914 mm) continuously. See Figure 11A-1E.

**EXCEPTION:** 32 inches (813 mm) in width is acceptable at a point not to exceed 24 inches (610 mm) in length.

- 1127A.9.2 Width for wheelchair passing. The minimum width for two wheelchairs to pass is 60 inches (1524 mm). See Figure 11A-1F.
- 1127A.9.3 Wheelchair turning space. The space required for a wheelchair to make a 180 degree turn is a clear space of 60 inches (1524 mm) diameter [see Figure 11A-1D(a)] or a T-shaped space [see Figure 11A-1D(b)].
- 1127A.9.4 Clear floor or ground space for wheelchairs.
- 1127A.9.4.1 Size and approach. The minimum clear floor or ground space required to accommodate a single, stationary wheelchair and occupant is 30 inches by 48 inches (762 mm by 1219 mm) (see Figure 11A-1G). The minimum clear floor or ground space for wheelchairs may be positioned for forward or parallel approach to an object (see Figure 11A-1G). Clear floor or ground space for wheelchairs may be part of the knee space required under some objects.
- 1127A.9.4.2 Relationship of maneuvering clearances to wheel-chair spaces. One full unobstructed side of the clear floor or ground space for a wheelchair shall adjoin or overlap an accessible route or adjoin another wheelchair clear floor space. If a clear floor space is located in an alcove or otherwise confined on all or a part of three sides, additional maneuvering clearances shall be provided as shown in Figure 11A-1H.
- 1127A.9.4.3 Surfaces of wheelchair spaces. Clear floor or ground spaces for wheelchairs shall comply with Sections 1119A.2, 1120A.3 and 1121A.
- 1127A.9.4.3.1 Gratings. Gratings located in ground and floor surfaces along accessible routes shall be limited to spaces no greater than  $^{1}/_{2}$ -inch (12.7 mm) wide in one direction. If gratings have elongated openings, they shall be placed so that the long dimension is perpendicular to the dominant direction of traffic.

### 1127A.9.5 Reach Ranges.

1127A.9.5.1 Forward reach. If the clear floor space allows only forward approach to an object, the maximum high forward reach allowed shall be 48 inches (1219 mm), and the minimum low forward reach shall be unobstructed and no less than 15 inches (381 mm) above the floor [see Figure. 11A-1I(a)]. If the high forward reach is over an obstruction, reach and clearances shall be as shown in Figure 11A-1I(b).

1127A.9.5.2 Side reach. If the clear floor space allows parallel approach by a person in a wheelchair, the maximum high side reach allowed shall be 54 inches (1372 mm) and the low side reach shall be no less than 9 inches (228.6 mm) above the floor [see Figure 11A-1J(a) and 11A-1J(b)]. If the side reach is over an obstruction, the reach and clearances shall be as shown in Figure 11A-1J(c).

### 1127A.9.6 Controls and Operating Mechanisms.

NOTE: See also Section 1142A, for electrical installation.

1127A.9.6.1 General. Controls and operating mechanisms in accessible spaces, along accessible routes, or as part of accessible elements (e.g., light switches and dispenser controls) shall comply with this section.

1127A.9.6.2 Clear floor space. Clear floor space complying with Section 1127A.9.4 that allows a forward or parallel approach by a person using a wheelchair shall be provided at controls, dispensers, receptacles and other operable equipment.

1127A.9.6.3 Height. Controls shall be located no higher than 48 inches (1219 mm), and no lower than 15 inches (381 mm), above the finished floor measured to the center of the grip. If the reach is over an obstruction (for example, washer or dryer) between 20 and 25 inches (508 and 635 mm) in depth, the maximum height is reduced to 44 inches (1118 mm) for forward approach, or 46 inches (1168 mm) for side approach, provided the obstruction is no more than 24 inches (610 mm) in depth. Controls that do not satisfy these specifications are acceptable, provided that comparable controls or outlets, that perform the same functions, are provided within the same area and are accessible.

1127A.9.6.4 Operation. Controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist. The force required to activate controls shall be no greater than 5 pounds (22.2 N) of force.

### 1127A.10 Common Accessible Laundry Rooms.

1127A.10.1 General. Where common use laundry rooms are provided, at least one of each type of appliance provided in each laundry area shall be accessible, shall be on an accessible route and shall comply with this section. Such appliances include clothes washing machines, dryers, soap dispensers and any related features such as wash sinks, tables and storage areas.

Where laundry rooms are provided on floors of an elevator building, each laundry room shall be accessible. Where there is one laundry room on a ground floor in each building, each laundry room shall be accessible. Where there is a laundry room on the ground floor of a building and another located in the basement, it is acceptable to have only the ground floor laundry room accessible.

1127A.10.2 Clear floor space. There shall be a minimum clear space 30 inches perpendicular by 48 inches parallel (762 mm by 1219 mm) in front of clothes washers and dryers required to be accessible.

There shall be a minimum clear space 30 inches by 48 inches (762mm by 1219 mm) provided for at least one of each type of fix-

ture or appliance provided in the laundry room (e.g., soap dispensers, wash sinks, tables, storage areas).

1127A.10.3 Controls. Clothes washers and dryers including stacked clothes washers and dryers required to be accessible shall have controls (including coin slots) within the reach range of a seated user. Controls shall be located no higher than 48 inches (1219 mm), and no lower than 15 inches (381 mm), above the finished floor measured to the center of the grip. If the reach is over an obstruction (for example, washer or dryer) between 20 and 25 inches (508 and 635 mm) in depth, the maximum height is reduced to 44 inches (1118 mm) for forward approach, or 46 inches (1168 mm) for side approach. Controls that do not satisfy these specifications are acceptable, provided that comparable controls or outlets that perform the same functions are provided within the same area and are accessible.

Controls shall be operable with one hand and not require tight grasping, pinching or twisting of the wrist.

1127A.10.4 Washing machines and clothes dryers. Washing machines and clothes dryers in accessible common-use laundry rooms shall be front loading.

### 1127A.11 Storage

1127A.11.1 General. If fixed storage facilities such as cabinets, shelves, closets or drawers are provided where access is required by Sections 101.17.9.1 and 1102A, at least one of each type of facility provided shall comply with this section. Additional storage may be provided outside of the reach ranges shown in Figure 11A-1J.

1127A.11.2 Clear floor space. A clear floor space at least 30 inches by 48 inches (762 mm by 1219 mm) complying with Section 1127A.9.4 that allows either a forward or parallel approach by a person using a wheelchair shall be provided at accessible storage facilities.

1127A.11.3 Height. Accessible storage spaces shall be within at least one of the reach ranges specified in Section 1127A.9.5. Clothes rods shall be a maximum of 54 inches (1372 mm) from the floor for a side approach (see Figure 11A-1J). Where the distance from the wheelchair to the clothes rod or shelf exceeds 10 inches (254 mm), as in closets without accessible doors, the height and depth to the rod or shelf shall comply with Figure 11A-1J.

1127A.11.4 Hardware. Hardware for accessible storage facilities shall comply with Section 1127A.9.6. Touch latches and Ushaped pulls are acceptable.

### 1127A.12 Fixed or Built-In Seating, Tables and Counters.

1127A.12.1 Minimum number. Where fixed or built-in seating, tables or counters are provided for residents or guests, 5 percent, but not less than one, shall be accessible as provided in this section.

1127A.12.2 Seating. When seating spaces for persons in wheel-chairs are provided at fixed tables or counters, clear floor space complying with Section 1127A.9.4 shall be provided. Such clear floor space shall not overlap knee space by more than 19 inches (483 mm). See Figure 11A-1K.

1127A.12.3 Knee clearance. When seating for persons in wheel-chairs is provided at fixed tables or counters, knee spaces at least 27 inches (686 mm) high, 30 inches (762 mm) wide and 19 inches (483 mm) deep shall be provided. See Figure 11A-1K.

1127A.12.4 Height of work surfaces. The tops of tables and counters shall be 28 inches to 34 inches (711 mm to 864 mm) from the floor or ground.

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### SECTION 1128A — COVERED DWELLING UNITS

1128A.1 General. Covered multifamily dwelling units shall be adaptable and accessible into and throughout the dwelling unit as provided in this Division.

**NOTE:** See Sections 1101A "Application" and 1102A "Building Accessibility" for dwelling units required to comply with this division.

### SECTION 1129A —RESERVED

### SECTION 1130A — ACCESSIBLE ROUTE WITHIN COVERED MULTIFAMILY DWELLING UNITS

1130A.1 General. An accessible route shall be provided through all rooms and spaces of the dwelling unit. The accessible route shall pass through the primary entry door and shall connect with all additional exterior doors, required clear floor spaces at kitchen appliances and bathroom fixtures. For the purpose of this section, "accessible routes" may include hallways, corridors and ramps.

EXCEPTION: An accessible route is not required from the interior of the unit into a basement or garage, except as provided in Section 1105A.1.

1130A.2 Width. The accessible route into and throughout covered multifamily dwelling units shall be at least 36 inches (914 mm) wide.

### SECTION 1131A — CHANGES IN LEVEL ON ACCESSIBLE ROUTES

1131A.1 Changes in Level Not Exceeding One-Half Inch. Abrupt changes in level along any accessible route shall not exceed  $^{1}/_{2}$  inch (12.7 mm). When changes in level do occur, they shall be beveled with a slope no greater than 1 unit vertical in 2 units horizontal (50% slope). Changes in level not exceeding  $^{1}/_{4}$  inch (6.35 mm) may be vertical.

1131A.2 Changes Greater Than One-Half Inch. Changes in level greater than  $^{1}/_{2}$  inch (12.7 mm) shall be made by means of a ramp, elevator or special access lift. See Section 1122A for ramps and Section 1124A.11 for special access lifts.

### SECTION 1132A —DOORS

1132A.1 Primary Entry Doors and Required Exit Doors. The primary entry door and all required exit doors shall comply with the requirements of this section. The requirements of Section 1126A.3 shall apply to maneuvering clearances at the side of the door exposed to common or public use spaces (e.g., entry or exit doors which open from the covered multifamily dwelling unit into a corridor, hallway or lobby, or directly to the outside).

1132A.2 Interior Doors and Secondary Exterior Doors. Doors intended for user passage and secondary exterior doors shall comply with this section. The provisions of this section shall apply to the dwelling unit side of doors leading from the interior of the dwelling unit to an unfinished basement or a garage attached to a single-story dwelling unit.

1132A.3 Width and Height of Doors. Doors shall comply with the following:

- 1. Doors shall not be less than 6 feet 8 inches (2032 mm) in height.
- 2. Swinging doors shall provide a net clear opening width of not less than 32 inches (813 mm), measured with the door or doors positioned at an angle of 90 degrees from the closed position. A

34-inch (864 mm) door is acceptable. The primary entry door and all required exit doors shall comply with the requirements of Section 1126A.1.

- 3. Swinging doors shall be capable of opening at least 90 degrees.
- 4. A nominal 32-inch (813 mm) clear opening provided by a standard 6-foot wide (1829 mm) sliding patio door assembly is acceptable.
- 5. A pair of doors, manual or automatic, must have at least one leaf which provides a clear width of not less than 32 inches (813 mm), measured with the door positioned at an angle of 90 degrees from its closed position.
- 6. The width of any component in the means of egress system shall not be less than the minimum width required by Section 1003 2 3

1132A.4 Level Floor or Landing. See also Chapter 10, Section 1003.3.1.6.2. The floor or landing on each side of a door shall be level. Primary entry doors, required exit doors, or secondary exterior doors with changes in height between the interior surface or floor level and the exterior surface or floor level shall comply with the following:

- 1. Exterior landings of impervious construction (e.g., concrete, brick, flagstone) serving primary entry doors and required exit doors are limited to not more than  $^{1}/_{2}$  inch of change in height between floor surfaces. Changes in level shall comply with Section 1131A.
- 2. Exterior landings of pervious construction (e.g., wood decking with spaces) shall be the same level as the interior landing, except that secondary exterior doors may have no more than  $^{1}/_{2}$  inch of change in height between floor surfaces. Changes in level shall comply with Section 1131A.
- 3. Secondary exterior doors onto decks, patios or balcony surfaces constructed of impervious materials (e.g., concrete, brick, flagstone) may have a maximum change in height from the interior landing of 4 inches. Changes in height greater than  $^{1}/_{2}$  inch (12.7 mm) shall be accomplished by means of a ramp.
- 4. In buildings containing covered multifamily dwelling units, the floor or landing immediately outside the entry may be sloped up to  $^{1}/_{4}$  inch (6.35 mm) per foot (12 inches) (305 mm), in a direction away from the primary entrance of the dwelling unit for drainage.

1132A.4.1 Thresholds. Thresholds at the primary entry and required exit doors shall be no higher than  $^{1}/_{2}$  inch (12.7 mm). Thresholds at secondary exterior doors, including sliding door tracks, shall be no higher than  $^{3}/_{4}$  inch (19.05 mm). Changes in height at interior door thresholds (e.g., floor material changes at door thresholds) shall not exceed  $^{1}/_{2}$  inch (12.7 mm). Thresholds shall comply with the following:

- 1. Thresholds with a change in height of not more than  $^{1}/_{4}$  inch (6.35 mm) may be vertical.
- 2. Thresholds with a change in height between  $\frac{1}{4}$  inch (6.35 mm) and  $\frac{3}{4}$  inch (19.05 mm) shall be beveled with a slope no greater than 1 unit vertical in 2 units horizontal (50% slope).

### 1132A.5 Maneuvering Clearances at Doors.

1132A.5.1 General. Maneuvering clearances at interior doors shall provide a minimum length on both sides of the door of at least 42 inches (1067 mm) measured at a right angle to the plane of the door in its closed position.

EXCEPTION: A 39-inch (991 mm) length is acceptable when a minimum clear opening width of 34 inches (864 mm) is provided.

The floor or landing on the dwelling unit side of the primary entry door and any required exit door shall have a minimum length of not less than 44 inches (1118 mm). Section 1126A.3 shall apply to maneuvering clearances at the side of the door exposed to common or public use spaces.

NOTE: See Section 1110A.5.3, item #4.

1132A.5.2 Strike edge maneuvering space at doors. The width of the level area on the side to which the door swings shall extend 18 inches (457 mm) past the strike edge for all doors. The width of the level area at the exterior side of the primary entry door and any required exit doors shall comply with Section 1126A.

**NOTES:** 1. See Section 1134A for bathrooms that are required to be accessible.

- 2. Twenty four inches (610 mm) is the preferred for strike edge clearance.
- 1132A.6 Closer-Effort to Operate Doors. Maximum effort to operate doors shall not exceed  $8^{1}/2$  pounds (38 N) for exterior doors and 5 pounds (22 N) for interior doors, such pull or push effort being applied at right angles to hinged doors and at the center plane of sliding or folding doors. Compensating devices or automatic door operators may be utilized to meet these standards. When fire doors are required, the maximum effort to operate the door may be increased to the minimum allowable by the appropriate enforcement agency, not to exceed 15 pounds (66.7 N).
- 1132A.7 Type of Lock or Latch. The type of latch and lock required for all doors shall be in accordance with Chapter 10, Section 1003.3.1.8.
- 1132A.8 Hand-Activated Door Hardware. Hand-activated door latching, locking and opening hardware shall be centered between 30 inches (762 mm) and 44 inches (1118 mm) above the floor. Latching and locking doors that are hand-activated and on an accessible route shall be operable with a single effort by levertype hardware, panic bars, push-pull activating bars or other hardware designed to provide passage without requiring the ability to grasp the opening hardware. Locked exit doors shall operate consistent with Section 1132A.6, in the direction of egress.
- 1132A.8.1 Lever type hardware. The lever or lever of actuated latches or locks shall be curved with a return to within  $^{1}/_{2}$  inch of the door to prevent catching on the clothing of persons during egress in Group R and U Occupancies with an occupant load greater than 10.
- 1132A.9 Smooth Surface. The bottom 10 inches (254 mm) of all doors shall have a smooth, uninterrupted surface to allow the door to be opened by a wheelchair footrest without creating a trap or hazardous condition. Where narrow frame doors are used, a 10-inch (254 mm) high smooth panel shall be installed on the push side of the door, which will allow the door to be opened by a wheelchair footrest without creating a trap or hazardous condition. See Figure 11A-8J.

EXCEPTION: Automatic and sliding doors.

1132A.10 Door Signal Devices. Every primary entrance to a covered multifamily dwelling unit shall be provided with a door buzzer, bell, chime or equivalent, The activating mechanism shall be mounted a maximum of 48 inches (1219 mm) above the floor and connected to permanent wiring.

### SECTION 1133A —KITCHENS

- 1133A.1 General. Kitchens shall be on an accessible route and shall comply with this section.
- 1133A.2 Clear Floor Space. Clear floor space at kitchens shall comply with the following:

- 1. A clear floor space at least 30 inches (762 mm) by 48 inches (1219 mm) that allows a parallel approach by a person in a wheelchair shall be provided at the range or cooktop.
- 2. A clear floor space at least 30 inches (762 mm) by 48 inches (1219 mm) that allows either a parallel or forward approach shall be provided at the kitchen sink and all other fixtures or appliances including the oven, dishwasher, refrigerator/freezer and trash compactor.
- 3. The centerline of the 30-inch (762 mm) by 48-inch (1219 mm) clear floor space provided for parallel or forward approach shall be aligned with the centerline of the appliance or fixture. See Figure 11A-10A.
- 1133A.2.1 Clear Width. Kitchens shall have a minimum clear width measured between any cabinet, countertop or the face of any appliance (excluding handles and controls) that projects into the kitchen and the opposing cabinet, countertop, appliance or wall as follows:
- 1. U-shaped kitchens, designed with parallel approach at a range or cooktop located at the base of the U, shall have a minimum clear width of at least 60 inches (1524 mm). See Figure 11A-10A.
- 2. U-Shaped kitchens, designed with a cooktop or sink located at the base of the U which provides a 30 inch (762 mm) wide knee space to a height of 27 inches (686 mm) above the floor to allow for a forward approach, shall have a clear width of at least 48 inches (1219 mm). See Figure 11A-10A.
- 3. All other kitchen designs shall provide a minimum clear width of at least 48 inches (1219 mm). See Figure 11A-10A.
- 1133A.3 Removable Base Cabinets. Base cabinets directly under the kitchen sink counter area, including toeboard and shelving, shall be removable without the use of specialized tools or specialized knowledge in order to provide clearance for a wheelchair. The finish floor beneath the kitchen sink counter area shall be extended to the wall.
- 1133A.4 Countertops. Kitchen countertops shall comply with this section and shall be provided with the following (see Section 1133A.4.1 for repositionable countertop requirements):
- 1. A minimum linear length of 30 inches (762 mm) of countertop shall be provided for the kitchen sink installation.
- 2. A minimum linear length of 30 inches (762 mm) of countertop shall be provided for a work surface.
- 3. The sink and work surface may be a single integral unit a minimum of 60 inches (1524 mm) in length, or be separate components.

EXCEPTION: Two 15-inch (381 mm) minimum width breadboards may be provided in lieu of the required 30 inches (762 mm) of countertop work surface.

- 1133A.4.1 Repositionable Countertops. Repositionable countertops shall be provided in a minimum of five percent of the covered multifamily dwelling units. Repositionable countertops shall comply with the following:
- 1. The kitchen sink and work surface space required by Section 1133A.4 shall be designed to enable repositioning to a minimum height of 28 inches (711 mm).
- 2. Base cabinets directly under the kitchen sink and work surface shall be removable to provide clearance for a wheelchair.
- 3. The sides of adjacent cabinets and the back wall, which may become exposed to moisture or food handling when a countertop is lowered, shall be constructed of durable, nonabsorbent materials appropriate for such uses.

4. Finished flooring shall be extended to the wall beneath the sink and work surface.

**EXCEPTIONS:** 1. Stone, cultured stone and tiled countertops may be used without meeting the repositioning requirements.

- 2. Two 15-inch (381 mm) minimum width breadboards may be provided in lieu of the required 30 inches (762 mm) of countertop work surface.
- 1133A.5 Lower Shelving. Lower shelving and/or drawer space shall be provided in the kitchen at a height of no more than 48 inches (1219 mm) above the floor.
- 1133A.6 Kitchen Sink Faucet Controls. Faucet controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist.

The force required to activate controls shall be no greater than 5 pound force (22.2N). Lever-operated, push-type and electronically controlled mechanisms are examples of acceptable designs. Self-closing valves are allowed if the faucet remains open for at least 10 seconds.

### SECTION 1134A —BATHING AND TOILET FACILITIES

- 1134A.1 General. All bathrooms, bathing and toilet facilities within covered multifamily dwelling units shall comply with this section.
- 1134A.2 Number of Complying Bathrooms. Bathrooms shall be designed to comply with one of the following options:
- *Option 1.* All bathrooms within the dwelling unit shall be designed to comply with the following:
- 1. Toilet, bathing and shower facilities shall comply with Section 1134A.4.
  - 2. Bathtubs shall comply with Section 1134A.5.
  - 3. Showers shall comply with Section 1134A.6.
  - 4. Water closets shall comply with Section 1134A.7.
- 5. Lavatories, vanities, mirrors and towel fixtures shall comply with Section 1134A.8.
- 6. Bathrooms shall be provided with an accessible route into and through the bathroom.
- 7. If a door is provided, it shall comply with the requirements of Section 1132A.5.
- 8. A minimum 18-inch (457 mm) clear maneuvering space shall be provided on the swing side of the door at the strike edge of the door.
- 9. Switches, outlets and controls shall comply with Section 1142A.
- 10. Reinforced walls to allow for the future installation of grab bars around the toilet, tub and shower shall comply with Sections 1134A.5 for bathtubs, 1134A.6 for showers and 1134A.7 for water closets. Grab bars shall comply with Section 1127A.4.
- *Option 2.* Only one bathroom within the dwelling unit shall be designed to comply with the following:
- 1. Toilet, bathing and shower facilities shall comply with Section 1134A.4.
- 2. Bathtubs shall comply with Section 1134A.5.
- 3. Showers shall comply with Section 1134A.6.
- 4. Water closets shall comply with Section 1134A.7.
- 5. Lavatories, vanities, mirrors and towel fixtures shall comply with Section 1134A.8.

- 6. Where both a tub and shower are provided in the bathroom, at least one shall be made accessible. See Section 1134A.5 for bathtubs or Section 1134A.6 for showers.
- 7. When two or more lavatories are provided, at least one shall be made accessible and comply with Section 1134A.8.
- 8. Bathrooms shall be provided with an accessible route into and through the bathroom.
- 9. If a door is provided, it shall comply with the requirements of Section 1132A.5.
- 10. A minimum 18-inch (457 mm) clear maneuvering space shall be provided on the swing side of the door at the strike edge of the door.
- 11. Switches, outlets and controls shall comply with Section 1142A.
- 12. Reinforced walls to allow for the future installation of grab bars around the toilet, tub and shower shall comply with Sections 1134A.5 for bathtubs, 1134A.6 for showers and 1134A.7 for water closets. Grab bars shall comply with Section 1127A.4.

When Option 2 is used, all additional bathrooms must also comply with items 8 through 12 above.

- 1134A.3 Powder Rooms. All powder rooms located on floor levels required to be accessible shall comply with items 1 through 6 of this section. When the powder room is the only toilet facility located on an accessible level, it shall comply with items 1 through 7 of this section.
- 1. Accessible route. Powder rooms shall be provided with an accessible route into and through the powder room and shall comply with Section 1134A.4.
- 2. **Doors.** If a door is provided it shall comply with the requirements of Section 1132A.5.
- 3. Water closets. Water closets shall comply with Section 1134A.7.
- 4. Lavatories, vanities, mirrors and towel fixtures. Lavatories, Vanities, mirrors and towel fixtures shall comply with Section 1134A.8.
- 5. Strike edge maneuvering space. A minimum 18 inch (457 mm) clear maneuvering space shall be provided on the swing side of the door at the strike edge of the door.
- 6. Accessible switches, outlets and controls. Switches, outlets and controls shall comply with Section 1142A.
- 7. Reinforced walls for grab bars. Reinforced walls to allow for the future installation of grab bars around the toilet shall comply with Section 1134A.7 for water closets. Grab bars shall comply with Section 1127A.4.
- 1134A.4 Sufficient maneuvering space. Bathing and toilet facilities required to be adaptable shall provide sufficient maneuvering space for a person using a wheelchair or other mobility aid to enter and close the door, use the fixtures, reopen the door and exit.

Where the door swings into the bathroom or powder room, there shall be a clear maneuvering space outside the swing of the door of at least 30 inches by 48 inches (762 mm by 1219 mm)] within the room. The clear maneuvering space shall allow the user to position a wheelchair or other mobility aid clear of the path of the door as it is closed and to permit use of fixtures.

Doors may swing into the required clear space at any fixture when a clear maneuvering space is provided outside the swing arc of the door so it can be closed.

Maneuvering spaces may include any kneespace or toespace available below bathroom fixtures.

1134A.5 Bathtubs. Bathtubs required to be accessible shall comply with this section.

- 1. Floor space. There shall be a minimum clear floor space 48 inches parallel by 30 inches perpendicular (1219 mm by 762 mm) to the side of a bathtub or bathtub-shower combination (measured from the foot or drain end of the bathtub) to provide for the maneuvering of a wheelchair and transfer to and from the bathing facilities. The area under a lavatory may be included in the clear floor space, provided the knee and toe space comply with Section 1134A.8. Cabinets under lavatories and toilets shall not encroach into the clear floor space.
- 2. **Reinforced walls for grab bars.** A bathtub installed without surrounding walls shall provide reinforced areas for the installation of floor-mounted grab bars.

Where a bathtub is installed with surrounding walls, grab bar reinforcement shall be located on each end of the bathtub, 32 inches to 38 inches (813 mm to 965 mm) above the floor, extending a minimum of 24 inches (610 mm) from the front edge of the bathtub toward the back wall of the bathtub. The grab bar reinforcement shall be a minimum of 6 inches (152.4 mm) nominal in height. See Figure 11A-9G.

Grab bar reinforcement shall be installed on the back wall of the bathtub a maximum of 6 inches (152.4 mm) above the bathtub rim extending upward to at least 38 inches (965 mm) above the floor. Grab bar backing shall be installed horizontally to permit the installation of a 48-inch (1219 mm) grab bar with each end a maximum of 6 inches (152.4 mm) from the end walls of the bathtub. The grab bar reinforcement shall be a minimum of 6 inches (152.4 mm) nominal in height.

3. **Bathtub controls.** Faucet controls and operation mechanisms shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist.

The force required to activate controls shall be no greater than 5 pound-force (22.2N). Lever operated, push-type and electronically controlled mechanisms are examples of acceptable designs.

- 4. **Shower unit.** A shower spray unit is not required in bathtubs.
- 5. Bathtub enclosures. Doors and panels of bathtub enclosures shall be substantially constructed from approved, shatter-resistant materials. Hinged doors shall open outward. Glazing used in doors and panels of bathtub enclosures shall be fully tempered, laminated safety glass or approved plastic. When glass is used, it shall have minimum thickness of not less than  $^{1}/_{8}$  inch (3.17 mm) when fully tempered, or  $^{1}/_{4}$  inch (6.35 mm) when laminated, and shall pass the test requirements of this Part, Chapter 24 Glass and Glazing. Plastics used in doors and panels of bathtub enclosures shall be of a shatter-resistant type.

1134A.6 Showers. Showers required to be accessible shall comply with this section.

- 1. Size. When a shower stall is provided, at least one shower stall shall measure at least 42 inches wide by 48 inches deep (1067 mm by 1219 mm) with an entrance opening of at least 36 inches (914 mm). The maximum slope of the shower floor shall be  $^{1}/_{2}$  inch (12.7 mm) per foot in any direction and shall slope toward the rear to a drain located within 6 inches (152.4 mm) of the rear wall. The floor surfaces shall be of Carborundum or grit-faced tile or of material providing equivalent slip resistance.
- 2. **Floor space.** A clear maneuvering space at least 30 inches in width by 48 inches in length (762mm by 1219mm) shall be located outside the shower, flush and parallel to the control wall.
- 3. Reinforced walls for grab bars. Grab bar reinforcement shall be installed continuous in the walls of showers 32 inches to

38 inches (813 mm to 965 mm) above the floor. The grab bar reinforcement shall be a minimum of 6 inches (152.4 mm) nominal in height.

Glass-walled shower stalls shall provide reinforcement for installation of floor-mounted or ceiling-mounted grab bars.

- 4. **Thresholds.** When a threshold (a recessed drop) is used, it shall be a maximum of  $^{1}/_{2}$  inch (12.7 mm) in height and have a beveled or sloped angle not exceeding 45 degrees from the horizontal.
- 5. Shower controls. Faucet controls and operation mechanisms shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist. The force required to activate controls shall be no greater than 5 pound-force (22.2N). Lever operated, push-type and electronically controlled mechanisms are examples of acceptable designs.
- 6. **Shower enclosures.** Doors and panels of shower enclosures shall be substantially constructed from approved, shatter-resistant materials. Hinged shower doors shall open outward. Glazing used in doors and panels of shower enclosures shall be fully tempered, laminated safety glass or approved plastic. When glass is used, it shall have minimum thickness of not less than  $\frac{1}{8}$  inch (3.17 mm) when fully tempered, or  $\frac{1}{4}$  inch (6.35 mm) when laminated, and shall pass the test requirements of this Part, Chapter 24 Glass and Glazing. Plastics used in doors and panels of showers enclosures shall be of a shatter-resistant type.

1134A.7 Water Closets. Water closets in bathrooms or powder rooms required to be accessible shall comply with this section.

1. Floor space. The water closet shall be located in a space a minimum of 36 inches (914 mm) in clear width with 48 inches (1219 mm) minimum clear space provided in front of the water closet. This space may include maneuverable space under a lavatory, if provided and arranged so as not to impede access.

EXCEPTION: In covered multifamily dwelling units, the water closet may be located in a space 48 inches (1219 mm) in clear width with 36 inches (914 mm) of clear space provided in front of the water closet.

Water closets shall be located within bathrooms in a manner that permits a grab bar to be installed on one side of the fixture. In locations where water closets are adjacent to walls or bathtubs, the centerline of the fixture shall be a minimum of 18 inches (457 mm) from the obstacle. The other (nongrab bar) side of the water closet shall be a minimum of 18 inches (457 mm) from the centerline of the fixture to the finished surface of adjoining walls, vanities or from the edge of a lavatory.

2. Reinforced walls for grab bars. Where the water closet is not placed adjacent to a side wall, the bathroom shall have provisions for installation of floor-mounted, foldaway or similar alternative grab bars.

Where the water closet is placed adjacent to a side wall, reinforcement shall be installed on both sides or one side and the back. If reinforcement is installed at the back, it shall be installed between 32 inches (813 mm) and 38 inches (965 mm) above the floor. The grab bar reinforcement shall be a minimum of 6 inches (152.4 mm) nominal in height. The backing shall be a minimum of 40 inches (1016 mm) in length.

Reinforcement installed at the side of the water closet shall be installed 32 inches to 38 inches (813 mm to 965 mm) above the floor. The reinforcement shall be installed a maximum of 12 inches (305 mm) from the rear wall and shall extend a minimum of 26 inches (660 mm) in front of the water closet. The grab bar reinforcement shall be a minimum of 6 inches (152.4 mm) nominal in height.

3. Seat height. The minimum height of water closet seats shall be 15 inches (381 mm) above the floor.

- 4. Water closet controls. Water closet controls shall be mounted no more than 44 inches (1118 mm) above the floor. The force required to activate controls shall be no greater than 5 pound-force (22.2 N).
- 1134A.8 Lavatories, Vanities, Mirrors and Towel Fixtures. Bathrooms or powder rooms required to be accessible shall have at least one accessible lavatory. Where mirrors and towel fixtures are provided, at least one of each shall be accessible.
- 1. Location. Vanities and lavatories shall be installed with the centerline of the fixture a minimum of 18 inches (457 mm) horizontally from an adjoining wall or fixture to allow for forward approach. When parallel approach is provided, lavatories shall be installed with the centerline of the fixture a minimum of 24 inches (610 mm) horizontally from an adjoining wall or fixture. The top of the fixture rim shall be a maximum of 34 inches (864 mm) above the finished floor.
- 2. **Floor space.** A clear maneuvering space at least 30 inches by 48 inches (762mm by 1219mm) shall be provided at lavatories and shall be centered on the lavatory.
- 3. Cabinets. Cabinets under lavatories are acceptable provided the bathroom has space to allow a parallel approach by a person in a wheelchair and the lavatory cabinets are designed with adaptable knee and toe space.
- 4. **Knee and toe space.** Knee and toe space shall be provided as follows:
  - 4.1 The knee space shall be at least 30 inches (762 mm) wide and 8 inches deep (203.2 mm).
  - 4.2 The knee space shall be at least 29 inches (737 mm) high at the front face and reducing to not less than 27 inches (686 mm) at a point 8 inches (203.2 mm) back from the front edge.
  - 4.3 The knee and toe space required in this section shall be provided by one of the following:
    - 4.3.1 The space beneath the lavatory shall be left clear and unobstructed.
    - 4.3.2 Any cabinet beneath the lavatory shall be removable without the use of specialized knowledge or specialized tools or,
    - 4.3.3 Doors to the cabinet beneath the lavatory shall be removable or openable to provide the required unobstructed knee and toe space.
  - 4.4 The toe space required in this section shall be provided as follows:
    - 4.4.1 Shall be at least 30 inches (762 mm) wide and centered on the lavatory.
    - 4.4.2 Shall be at least 17 inches (432 mm) deep, measured from the front edge.
    - 4.4.3 Shall be at least 9 inches (228.6 mm) high from the floor.
- 5. **Finished floor.** The finished floor beneath the lavatory shall be extended to the wall.
- 6. **Plumbing protection.** Hot water and drain pipes exposed under lavatories shall be insulated or otherwise covered. There shall be no sharp or abrasive surfaces under lavatories.
- 7. Lavatory faucet controls. Faucet controls and operation mechanisms shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist.

The force required to activate controls shall be no greater than 5 pound-force (22.2N). Lever operated, push-type and electronically controlled mechanisms are examples of acceptable designs.

Self-closing valves are allowed if the faucet remains open for at least 10 seconds.

8. Mirrors and towel fixtures. Where mirrors or towel fixtures are provided they shall be mounted with the bottom edge no higher than 40 inches (1016 mm) from the floor.

### SECTION 1135A —LAUNDRY ROOMS

1135A.1 General. If clothes washing machines and clothes dryers are provided in covered multifamily dwelling units, one of each type of appliance shall be provided. Where front-loading clothes washers are not provided, management shall provide assistive devices, on request of the occupant, to permit the use of top-loading clothes washers.

### SECTION 1136A —ELECTRICAL RECEPTACLE, SWITCH AND CONTROL HEIGHTS

1136A.1 Receptacle Heights. Electrical receptacle outlets on branch circuits of 30 amperes or less and communication system receptacles shall be located no more than 48 inches (1219 mm) measured from the top of the receptacle outlet box or receptacle housing nor less than 15 inches (381 mm) measured from the bottom of the receptacle outlet box or receptacle housing to the level of the finished floor or working platform. If the reach is over an obstruction (for example, a kitchen base cabinet) between 20 and 25 inches in depth, the maximum height measured at the box is reduced to 44 inches for forward approach, or 46 inches for side approach, provided the obstruction is no more than 24 inches in depth. Obstructions shall not extend more than 25 inches from the wall beneath the receptacle.

Outlets that do not satisfy these specifications are acceptable, provided that comparable outlets that perform the same functions are provided within the same area and are accessible.

**EXCEPTIONS:** 1. Receptacle outlets installed as part of permanently installed baseboard heaters are exempt.

- 2. Required receptacle outlets shall be permitted in floors when adjacent to sliding panels or walls.
- 3. Baseboard electrical outlets used in relocatable partitions, window walls or other electrical convenience floor outlets are not subject to the minimum height requirements.
- 4. This section shall not apply to existing buildings when the enforcing agency determine that compliance with these standards would create an unreasonable hardship.

**NOTE:** The intent of the measurement is to ensure that receptacles fall within the reach range of 15 to 48 inches (381 to 1220 mm).

1136A.2 Switch and Control Heights. Controls or switches intended to be used by the occupant of the room or area to control lighting and receptacle outlets, appliances, alarms, or cooling, heating and ventilating equipment, shall be located no more than 48 inches (1219 mm) measured from the top of the outlet box nor less than 15 inches (381 mm) measured from the bottom of the outlet box to the level of the finished floor or working platform. If the reach is over a physical barrier an obstruction (for example, a kitchen base cabinet) between 20 and 25 inches (508 and 635 mm) in depth, the maximum height is reduced to 44 inches (1118 mm) for forward approach, or 46 inches (1168 mm) for side approach, provided the obstruction is no more than 24 inches (610 mm) in depth. Physical barriers or obstructions shall not extend more than 25 inches (635 mm) from the wall beneath a control.

Controls that do not satisfy these specifications are acceptable, provided that comparable controls or outlets that perform the same functions are provided within the same area and are accessible.

**EXCEPTION:** Appliances (e.g., kitchen stoves, dishwashers, range hoods, microwave ovens and similar appliances) which do not have controls located on the appliance.

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### Division V—FEATURES COMMON TO EXTERIOR AND INTERIOR OF BUILDINGS

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### SECTION 1137A — OTHER FEATURES AND FACILITIES

1137A.1 General. This division shall apply to features and facilities of common use areas on accessible floors or sites.

**NOTE:** The provisions in this division are not applicable to dwelling units.

### SECTION 1138A — RESERVED

### SECTION 1139A — ACCESSIBLE DRINKING FOUNTAINS

1139A.1 General. Drinking fountains and water coolers in common-use areas and/or sites shall comply with this section. A side approach drinking fountain is not acceptable.

1139A.2 Accessible Route. Drinking fountains and water coolers shall be on an accessible route.

- 1139A.3 Design and Construction. Wall-mounted and postmounted cantilevered drinking fountains and water coolers shall be designed and constructed to comply with the following: (see Figure 11A-11A):
- 1. A clear floor space shall be provided in conformance with the following:
  - 1.1 A minimum clear floor space 30 inches by 48 inches (762 mm by 1219 mm) to allow a person in a wheelchair to approach the unit facing forward.
  - 1.2 A clear knee space a minimum of 30 inches (762 mm) in width.
  - 1.3 A clear knee space a minimum of 18 inches (457 mm) in depth.
  - 1.4 A clear and unobstructed knee space under the drinking fountain not less than 27 inches (686 mm) in height and 8 inches (203.2 mm) in depth, the depth measurements being taken from the front edge of the fountain.
  - 1.5 A toe clearance of 9 inches (228.6 mm) in height above the floor and 17 inches (432 mm) in depth from the front edge of the fountain.
- 2. Water flow shall be provided in conformance with the following:
  - 2.1 The spout shall be shall be located within 6 inches (152.4 mm) of the front edge of the drinking fountain and within 36 inches (914 mm) of the floor.
  - 2.2 A flow of water at least 4 inches (101.6 mm) high shall be available to allow the insertion of a cup or glass under the flow of water.
  - 2.3 The water stream from the bubbler shall be substantially parallel to the front edge of the drinking fountain.
  - 2.4 The force required to activate controls shall be no greater than 5-pound force (22.2 N).
  - 2.5 Manually operated or electronically operated controls shall be located within 6 inches (152.4 mm) of the front edge of the fountain.
- 1139A.3.1 Location. Water fountains shall be located completely within alcoves or otherwise positioned so as not to encroach into pedestrian ways. The alcove in which the water fountain is located shall not be less than 32 inches (813 mm) in width and 18 inches (457 mm) in depth. Protruding objects located in alcoves or other-

wise positioned so as to limit encroachment into pedestrian ways are permitted to project 4 inches into walks, halls corridors, passageways or aisles. See Figure 11A-11A.

**EXCEPTION:** When the enforcing agency determines that it would create an unreasonable hardship to locate the water fountain in an alcove, the water fountain may project into the path of travel, and the path of travel shall be identifiable to the blind as follows:

- 1. The surface of the path of travelat the water fountain shall be textured so that it is clearly identifiable by a blind person using a cane. The minimum textured area shall extend from the wall supporting the water fountain to 1 foot (305 mm) beyond the front edge of the water fountain and shall extend 1 foot (305 mm) beyond each side of the water fountain, or
- 2. Wing walls shall be provided on each side of the water fountain. The wing walls shall project out from the supporting wall at least as far as the water fountain to within 6 inches (152.4 mm) of the surface of the path of travel. There shall also be a minimum of 32 inches (813 mm) clear between the wing walls.

### SECTION 1140A — ACCESSIBLE TELEPHONES

1140A.1 General. If public telephones are provided, they shall comply with this section. On floors where public telephones are provided, at least one telephone shall be accessible. On any floor where two or more banks of multiple telephones are provided, at least one telephone in each bank shall be accessible.

1140A.2 Clear Floor or Ground Space. A clear floor or ground space at least 30 inches by 48 inches (762 mm by 1219 mm) that allows either a forward or parallel approach by a person using a wheelchair shall be provided at telephones. Bases, enclosures and fixed seats shall not impede approaches to telephones by people who use wheelchairs. See Figure 11A-11B.

The minimum clear floor or ground space for wheelchairs may be positioned for forward or parallel approach to an object. Clear floor or ground space for wheelchairs may be part of the knee space required under some objects.

1140A.3 Relationship of Maneuvering Clearances to Wheelchair Spaces. One full unobstructed side of the clear floor or ground space for a wheelchair shall adjoin another wheelchair clear floor space. If a clear floor space is located in an alcove or otherwise confined on all or part of three sides, additional maneuvering clearances shall be provided.

1140A.4 Mounting Height. The highest operable part of the telephone shall be within the reach ranges specified in Figure 11A-11B. Telephones mounted diagonally in a corner that require wheelchair users to reach diagonally shall have the highest operable part no higher than 54 inches (1372 mm) above the floor. See Figure 11A-11B.

1140A.5 Enclosures. If telephone enclosures are provided, they may overhang the clear floor space required in Sections 1140A.2 and 1140A.3 with the following limits:

- 1. Side reach possible. The overhang shall be no greater than 19 inches (483 mm). The height of the lowest overhanging part shall be equal to or greater than 27 inches (686 mm) above the floor.
- 2. Full-height Enclosures. Entrances to full-height enclosures shall be a minimum of 30 inches (762 mm) in width.
- 3. Forward reach required. If the overhang is greater than 12 inches (305 mm), then the clear width of the enclosure shall be 30 inches (762 mm) minimum; if the clear width of the enclosure is less than 30 inches (762 mm), then the height of the lowest overhanging part shall be equal to or greater than 27 inches (686 mm).
- 1140A.6 Equipment for Hearing Impaired People. Telephones shall be equipped with a receiver that generates a magnetic field

in the area of the receiver cap. A reasonable number of the public telephones provided, but always at least one on each floor or in each bank, whichever is more, in a building or facility, shall be equipped with a volume control. Such telephones shall be capable of a minimum of 12 dbA and a maximum of 18 dbA above normal. If an automatic reset is provided, 18 dbA may be exceeded. Public telephones with volume control shall be hearing aid compatible and shall be identified by a sign containing a depiction of a telephone handset with radiating sound waves. See Figure 11A-11D.

1140A.7 Text Telephones. If a total of four or more public pay telephones are provided at the interior and exterior of a site, and if at least one of the total number provided is located in an interior location, at least one interior public text telephone shall be provided.

1140A.7.1 Signage. Text telephones shall be identified by the International TTY symbol (see Figure 11A-11C). If a facility has a public text telephone, directional signage indicating the location of the nearest such telephone shall be placed adjacent to all banks of telephones that do not contain a text telephone. Such directional signage shall include the International TTY symbol. If a facility has no banks of telephones, the directional signage shall be provided at the entrance or in a building directory.

1140A.8 Controls. Telephones shall have push-button controls where service for such equipment is available.

1140A.9 Cord Length. The cord from the telephone to the handset shall be at least 29 inches (737 mm) long.

1140A.10 Telephone Books. If telephone books are provided, they shall be located in a position that complies with the reach ranges in Figures 11A-1I and 11A-1J.

### SECTION 1141A — ACCESSIBLE SWIMMING POOLS

1141A.1 General. Swimming pools in common-use areas shall comply with the provisions of this section and Chapter 31B.

1141A.2 Swimming Pool Deck Areas. Swimming pool deck areas must be accessible, and a mechanism to assist persons with disabilities gain entry into the pool and exit from the pool shall be provided. Such a mechanism may consist of a swimming pool lift device as long as the device meets all of the following criteria:

- 1. Has a seat that meets all of the following:
  - 1.1 The seat must be rigid;
  - 1.2 The seat must be not less than 17 inches (432 mm) and not more than 19 inches (483 mm), inclusive of any cushioned surface that might be provided, above the pool deck;
  - 1.3 The seat must have two armrests. The armrest on the side of the seat by which access is gained shall be either removable or fold clear of the seat;
  - 1.4 The seat must have a back support that is at least 12 inches (305 mm) tall;
  - 1.5 The seat must have an occupant restraint for use by the occupant of the seat, and the restraint must meet the standards for operable controls in compliance with Section 1127A.9.6.4.
- 2. Be capable of unassisted operation from both the deck and water levels.
- 3. Be stable and not permit unintended movement when a person is getting into or out of the seat.
- 4. Be designed to have a live-load capacity of not less than 300 pounds.

- 5. Be positioned so that, if the pool has water of different depths, it will place the operator into water that is at least three feet (914 mm) deep.
- 6. Be capable of lowering the operator at least 18 inches (457 mm) below the surface of the water.

### SECTION 1142A — ELECTRICAL RECEPTACLE, SWITCH AND CONTROL HEIGHTS

1142A.1 Receptacle Heights. Electrical receptacle outlets on branch circuits of 30 amperes or less and communication system receptacles shall be located no more than 48 inches (1219 mm) measured from the top of the receptacle outlet box or receptacle housing nor less than 15 inches (381 mm) measured from the bottom of the receptacle outlet box or receptacle housing to the level of the finished floor or working platform. If the reach is over an obstruction (for example, a kitchen base cabinet) between 20 and 25 inches in depth, the maximum height measured at the box is reduced to 44 inches for forward approach, or 46 inches for side approach, provided the obstruction is no more than 24 inches in depth. Obstructions shall not extend more than 25 inches from the wall beneath the receptacle.

Outlets that do not satisfy these specifications are acceptable, provided that comparable outlets that perform the same functions are provided within the same area and are accessible.

**EXCEPTIONS:** 1. Receptacle outlets installed as part of permanently installed baseboard heaters are exempt.

- 2. Required receptacle outlets shall be permitted in floors when adjacent to sliding panels or walls.
- 3. Baseboard electrical outlets used in relocatable partitions, window walls or other electrical convenience floor outlets are not subject to the minimum height requirements.
- 4. This section shall not apply to existing buildings when the enforcing agency determines that compliance with these standards would create an unreasonable hardship.

**NOTE:** The intent of the measurement is to insure that receptacles fall within the reach range of 15 to 48 inches (381 to 1220 mm).

1142A.2 Switch and Control Heights. Controls or switches intended to be used by the occupant of the room or area to control lighting and receptacle outlets, appliances, alarms, or cooling, heating and ventilating equipment, shall be located no more than 48 inches (1219 mm) measured from the top of the outlet box nor less than 15 inches (381 mm) measured from the bottom of the outlet box to the level of the finished floor or working platform. If the reach is over a physical barrier an obstruction (for example, a kitchen base cabinet) between 20 and 25 inches (508 and 635 mm) in depth, the maximum height is reduced to 44 inches (1118 mm) for forward approach, or 46 inches (1168 mm) for side approach, provided the obstruction is no more than 24 inches (610 mm) in depth. Physical barriers or obstructions shall not extend more than 25 inches (635 mm) from the wall beneath a control.

Controls that do not satisfy these specifications are acceptable, provided that comparable controls or outlets that perform the same functions are provided within the same area and are accessible.

### SECTION 1143A — SIGNAGE

1143A.1 General. When signs and/or identification devices are provided they shall comply with this section.

EXCEPTION: Signs need not be provided within dwelling unit

1143A.2 Identification Signs. When signs identify permanent rooms and spaces of a building or site, they shall comply with Sections 1143A.5, 1143A.6, 1143A.8, 1143A.9 and 1143A.10.

**NOTE:** See Section 1124A for additional signage requirements applicable to elevators, and Section 1127A.7 for sanitary facilities.

1143A.3 Direction and Informational Signs. When signs direct to or give information about permanent rooms and space of a building or site, they shall comply with Sections 1143A.5, 1143A.6 and 1143A.7.

1143A.4 Accessibility Signs. When signs identify, direct or give information about accessible elements and feature of a building or site, they shall include the appropriate symbol of accessibility and shall comply with Section 1143A.5 and, when applicable, Section 1143A.11.

1143A.5 Finish and Contrast. Characters, symbols and their background shall have a nonglare finish. Characters and symbols shall contrast with their background, either light on a dark background or dark on a light background.

1143A.6 Proportions. Characters on signs shall have a width-toheight ratio of between 3:5 and 1:1 and a stroke width to height ratio of between 1:5 and 1:10.

1143A.7 Character Height. Characters and numbers on signs shall be sized according to the viewing distance from which they are to be read. The minimum height is measured using an uppercase X. Lowercase characters are permitted. For signs suspended or projected above the finish floor greater than 80 inches (2032 mm), the minimum character height shall be 3 inches (76 mm).

1143A.8 Raised Characters and Pictorial Symbol Signs. When raised characters are required or when pictorial symbols (pictograms) are used on such signs, they shall conform to the following requirements:

- 1. Character Type. Characters on signs shall be raised  $^{1}/_{32}$ -inch (0.794 mm) minimum and shall be sans serif uppercase characters accompanied by Grade 2 Braille complying with Sectionn 1143A.9.
- 2. **Character Size.** Raised characters shall be a minimum of  $\frac{5}{8}$  inch (15.9 mm) and a maximum of 2 inches (51 mm) high.
- 3. Pictorial Symbol Signs (Pictograms). Pictorial symbol signs (pictograms) shall be accompanied by the verbal description placed directly below the pictogram. The outside dimension of the pictogram field shall be a minimum of 6 inches (152 mm) in height.
- 4. Character Placement. Characters and Braille shall be in a horizontal format. Braille shall be placed a minimum of  $\frac{3}{8}$  inch

and a maximum of  $^{1}/_{2}$  inch directly below the tactile characters; flush left or centered. When tactile text is multi-lined, all Braille shall be placed together below all lines of tactile text.

1143A.9 Braille. Contracted Grade 2 Braille shall be used wherever Braille is required in other portions of these standards. Dots shall be  $^{1}/_{10}$  inch (2.54 mm) on centers in each cell with  $^{2}/_{10}$ -inch (5.08 mm) space between cells, measured from the second column of dots in the first cell to the first column of dots in the second cell. Dots shall be raised a minimum of  $^{1}/_{40}$  inch (0.635 mm) above the background. Braille dots shall be domed or rounded.

1143A.10 Mounting Location and Height. Where permanent identification signs are provided for rooms and spaces, signs shall be installed on the wall adjacent to the latch side of the door. Where there is no wall space on the latch side, including at double leaf doors, signs shall be placed on the nearest adjacent wall, preferably on the right.

Where permanent identification signage are provided for rooms and spaces they shall be located on the approach side of the door as one enters the room or space. Signs that identify exits shall be located on the same side of the door as the visual exit sign.

Mounting height shall be 60 inches (1524 mm) above the finish floor to the centerline of the sign. Mounting location shall be determined so that a person may approach within 3 inches (76 mm) of signage without encountering protruding objects or standing within the swing of a door.

**NOTE:** See also Section 1127A.7 for additional signage requirements applicable to sanitary facilities.

SECTION 1144A — RESERVED

SECTION 1145A — RESERVED

SECTION 1146A — RESERVED

SECTION 1147A — RESERVED

SECTION 1148A — RESERVED

SECTION 1149A — RESERVED

ACACACACACACACACACACACACACACACA

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### **Division VI—SITE IMPRACTICALITY TESTS**

### Division VI Table of Contents

Section 1150A Site Impracticality Tests

Test No. 1 Individual Building Test

Test No. 2 Site Analysis Test

Test No. 3 Unusual Characteristics Test

OCTOBER 12, 2006 SUPPLEMENT

### SECTION 1150A — SITE IMPRACTICALITY TESTS

1150A.1 General. Covered multifamily dwellings in buildings without an elevator, located on sites with difficult terrain conditions or unusual characteristics, may employ the site impractical-

ity tests in this division for determining the accessibility and adaptability provisions required by this chapter.

Except as provided for in Section 1102A.2, the provisions of this section do not apply to multiple-story dwelling units in nonelevator buildings, i.e., townhouses.

### SINGLE BUILDING WITH ONE COMMON (LOBBY) ENTRANCE

The following may only be used for determining required access to covered multifamily dwelling units, in a single building with one common (lobby) entrance, located on a site with difficult terrain conditions or unusual characteristics:

All ground floor units in nonelevator buildings shall be adaptable and on an accessible route unless an accessible route to the common (lobby) entrance is not required as determined by Test No. 1, Individual Building Test, or Test No. 3, Unusual Characteristics Test, as described in this section.

Sites where either Test No. 1 or Test No. 3 is used and it is determined that an accessible route to the common (lobby) entrance is not required, at least twenty percent of the ground floor dwelling units shall comply with Division IV, and all remaining ground floor dwelling units shall comply with the features listed in Section 1150A.2 unless exempted by Test No. 3, Unusual Characteristics Test.

Test No. 1- Individual Building Test may only be used if the site has terrain over fifteen percent slope.

Test No. 3 - Unusual Characteristics Test may be used if applicable.

### ALL OTHER SITES, INCLUDING SINGLE BUILDING WITH MULTIPLE ENTRANCES

The following may only be used for determining required access to covered multifamily dwelling units, in all other sites or a single building with multiple entrances, located on a site with difficult terrain conditions or unusual characteristics:

All ground floor units in nonelevator buildings shall be adaptable and on an accessible route unless an accessible route is not required as determined by Test No. 1, Individual Building Test, or Test No. 2, Site Analysis Test, or Test No. 3, Unusual Characteristics Test, as described in this section.

Unless exempted by Test No. 3, Unusual Characteristics Test, at least twenty percent of the ground floor dwelling units shall be on an accessible route and shall comply with Division IV, and all remaining ground floor dwelling units shall comply with the features listed in Section 1150A.2.

- Test No. 1- Individual Building Test may only be used if the site has terrain over 15 percent slope.
- Test No. 2 Site Analysis Test may only be used if the site has terrain over 10 percent slope.
- Test No. 3 Unusual Characteristics Test may be used if applicable.

**Provisions to Test Nos. 1 and 2.** Where a building elevator is provided only as means of creating an accessible route to covered multifamily dwelling units on a ground floor, the building is not considered to be an elevator building for purposes of this code; hence, only the ground floor dwelling units would be covered.

### TEST NO. 1—INDIVIDUAL BUILDING TEST

It is not required by this code to provide an accessible route when the terrain of the site is such that both of the following apply:

- 1. The slopes of the undisturbed site measured between the planned entrance and all vehicular or pedestrian arrival points within 50 feet (15240 mm) of the planned entrance exceed 15 percent; and
- 2. The slopes of the planned finished grade measured between the entrance and all vehicular or pedestrian arrival points within 50 feet (15240 mm) of the planned entrance also exceed 15 percent.

If there are no vehicular or pedestrian arrival points within 50 feet (15240 mm) of the planned entrance, the slope for the purposes of Test No. 1 will be measured to the closest vehicular or pedestrian arrival point.

For purposes of these requirements, vehicular or pedestrian arrival points include public or resident parking areas, public transportation stops, passenger loading zones, and public streets or

sidewalks. To determine site impracticality, the slope would be measured at ground level from the point of the planned entrance on a straight line to (i) each vehicular or pedestrian arrival point that is within 50 feet (15240 mm) of the planned entrance, or (ii) if there are no vehicular or pedestrian arrival points within the specified area, the vehicular or pedestrian arrival point closest to the planned entrance. In the case of sidewalks, the closest point to the entrance will be where a public sidewalk entering the site intersects with the walk to the entrance. In the case of resident parking areas, the closest point to the planned entrance will be measured from the entry point to the parking area that is located closest to the planned entrance.

### TEST NO. 2—SITE ANALYSIS TEST

For a site having multiple buildings, or a site with a single building with multiple entrances, it is not required to provide an accessible route to all ground floor units under the following conditions:

1. Calculate the percentage of the total buildable area of the undisturbed site with a natural grade less than 10 percent slope. The analysis of the existing slope (before grading) shall be done on a topographic survey with 2-foot (610 mm) contour intervals with slope determination made between each successive interval. The accuracy of the slope analysis shall be certified by a licensed engineer, landscape architect, architect or surveyor.

- 2. Determine the requirement of providing an accessible route to planned multifamily dwellings based on the topography of the existing natural terrain. The minimum percentage of ground floor units required on an accessible route shall equal the percentage of the total buildable area (not restricted-use areas) of the undisturbed site with an existing natural grade of less than 10 percent slope. In no case shall less than twenty percent of the ground floor dwelling units be on an accessible route and comply with the provisions of Division IV.
- 3. In addition to the percentage established in paragraph (2), all additional ground floor units in a building, or ground floor units served by a particular entrance, that fall within an 8.33 percent slope between their planned entrances and an arrival point, shall be on an accessible route and comply with the provisions of Division IV.
- 4. All additional ground floor units in a building, or ground floor units served by a particular entrance, not on an accessible route shall comply with the features listed in Section 1150A.2.

### TEST NO. 3—UNUSUAL CHARACTERISTICS TEST

Unusual characteristics include sites located in a federally designated floodplain or coastal high-hazard area and sites subject to other similar requirements of law or code that require the lowest floor or the lowest structural member of the lowest floor be designed to a specified level at or above the base flood elevation. An accessible route to a building entrance is impractical due to unusual characteristics of the site when:

1. The original site characteristics result in a difference in finished grade elevation exceeding 30 inches (762 mm) and 10 percent measured between an entrance and all vehicular or

pedestrian arrival points within 50 feet (15240 mm) of the planned entrance; or

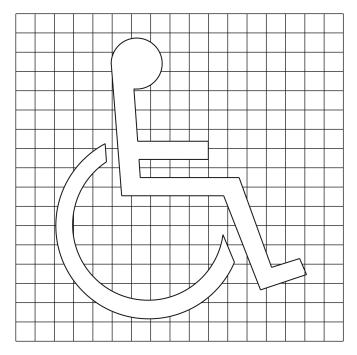
2. If there are no vehicular or pedestrian arrival points within 50 feet (15240 mm) of the planned entrance, the unusual characteristics result in a difference in finished grade elevation exceeding 30 inches (762 mm) and 10 percent measured between an entrance and the closest vehicular or pedestrian arrival point.

### 1150A.2 Additional Requirements for Section 1150A.

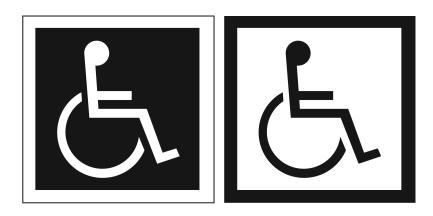
All other ground floor dwelling units in nonelevator buildings shall be made to comply with the following requirements:

- 1. Grab bar reinforcement (see Section 1134A).
- 2. 32-inch (813 mm) clear door interior opening width (see Section 1132A.3).
  - 3. Lever hardware (see Section 1132A.8).
  - 4. Door signal devices (see Section 1132A.10).
  - 5. Clear space by doors (see Chapters 10 and 11A).
- 6. Minimum 15-inch (381 mm) water closet seat height (see Section 1134A.7. Item 3).
  - 7. Electrical receptacle outlet height (see Section 1136A).
- 8. Lighting and environmental control height (see Section 1136A).
- 9. Faucet controls (see Section 1134A.8 Item 7).
- 10. Water closet, bathtub and lavatory minimum space requirements (see Section 1134A).
- 11. Removable cabinets under the kitchen sink counter area (see Section 1133A.3).

### **Division VII—FIGURES**



(a) SYMBOL PROPORTIONS

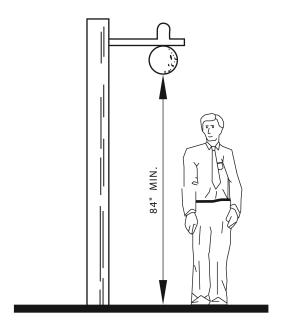


(b) DISPLAY CONDITIONS

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11A-1A—INTERNATIONAL ACCESSIBILITY SYMBOL

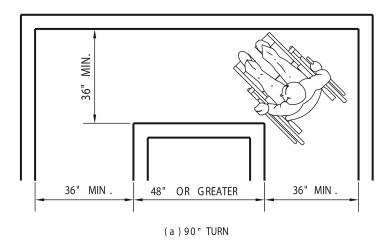
1-134.20.18 OCTOBER 12, 2006 SUPPLEMENT

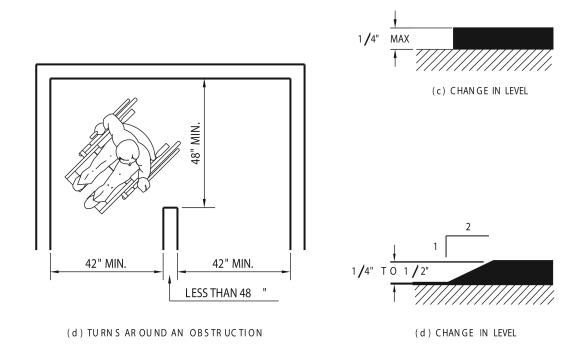


THIS DIAGRAM ILLUSTRATES THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND IS INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11A-1B—OVERHANGING OBSTRUCTION

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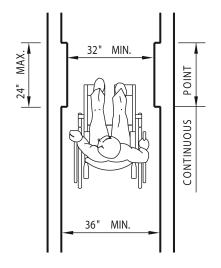




THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION

FIGURE 11A-1C—WIDTH OF ACCESSIBLE ROUTE

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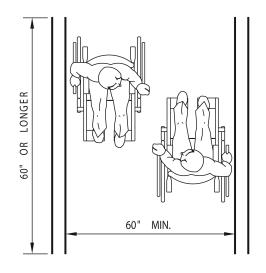
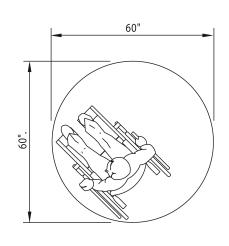
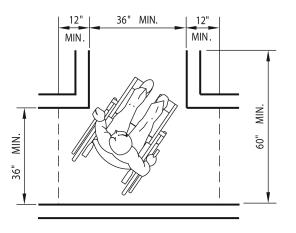


FIGURE 11A-1E—MINIMUM CLEAR WIDTH FOR SINGLE WHEELCHAIR

FIGURE 11A-1F—MINIMUM CLEAR WIDTH FOR TWO WHEELCHAIRS





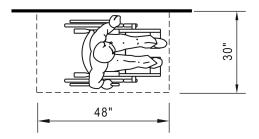
(a) 60 INCHES DIAMETER SPACE

(b) T-SHAPED SPACE FOR 180° TURNS

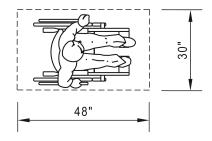
THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11A-1D—WHEELCHAIR TURNING SPACE

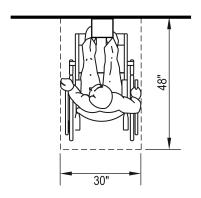
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PARALLEL APPROACH



**CLEAR FLOOR SPACE** 

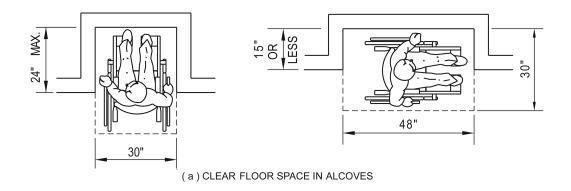


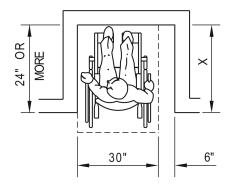
FORWARD APPROACH

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION

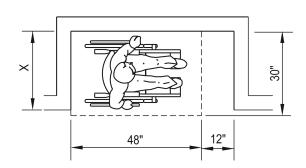
FIGURE 11A-1G—MINIMUM CLEAR FLOOR SPACE FOR WHEELCHAIRS

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NOTE: IF X>24 INCHES, THEN AN ADDITIONAL MANEUVERING CLEARANCE OF 6 INCHES SHALL BE PROVIDED AS SHOWN.



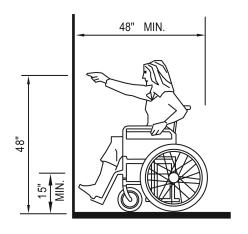
NOTE: IF X > 15 INCHES, THEN AN ADDITIONAL MANEUVERING CLEARANCE OF 12 INCHES SHALL BE PROVIDED AS SHOWN.

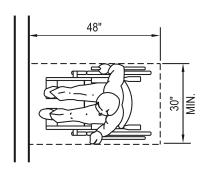
(b) ADDITIONAL MANEUVERING CLEARANCE FOR ALCOVES

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION

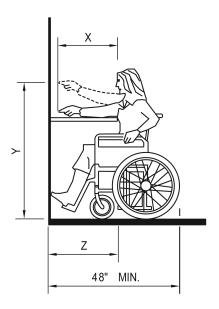
FIGURE 11A-1H—MINIMUM CLEAR FLOOR SPACE FOR WHEELCHAIRS

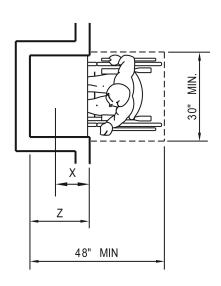
OCTOBER 12, 2006 SUPPLEMENT 1\_134.20.23





(a) HIGH FORWARD REACH LIMIT





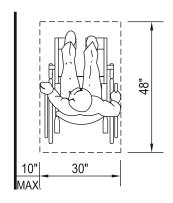
### NOTE:

X SHALL BE LESS THAN OR EQUAL TO 25 INCHES Z SHALL BE GREATER THAN OR EQUAL TO X. WHEN X IS LESS THAN 20 INCHES, THEN Y SHALL BE 48 INCHES MAXIMUM. WHEN X IS 20 TO 25 INCHES, THEN Y SHALL BE 44 INCHES MAXIMUM.

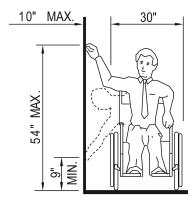
(b) MAXIMUM FORWARD REACH OVER AN OBSTRUCTION

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION

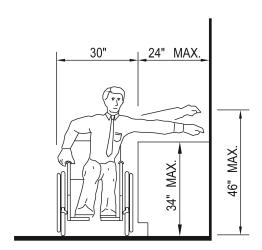
FIGURE 11A-1I—FORWARD REACH



(a) CLEAR FLOOR SPACE PARALLEL APPROACH



(b) HIGH AND LOW SIDE REACH LIMITS

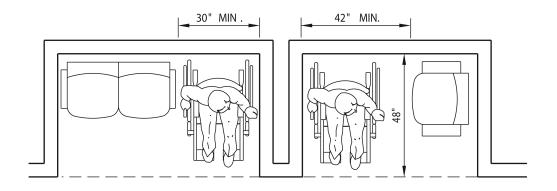


(c) MAXIMUM SIDE REACH OVER OBSTRUCTION

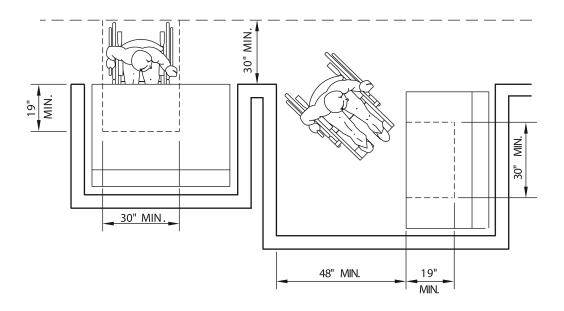
THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION

FIGURE 11A-1J—SIDE REACH

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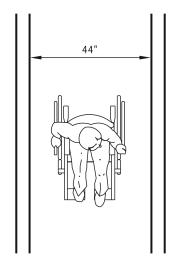




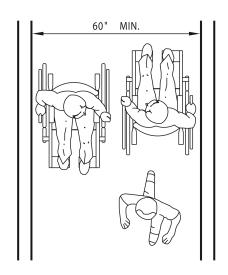
THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11A-1K—MINIMUM CLEARANCES FOR SEATING AND TABLE

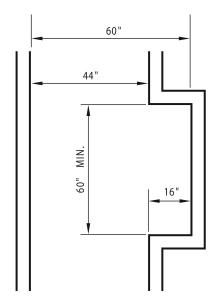
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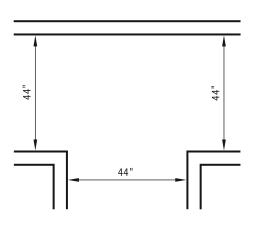


MINIMUM CORRIDOR WIDTH



MINIMUM WIDTH FOR CORRIDORS OVER 200





PASSING ALCOVES FOR CORRIDORS OVER 200' IN LIEU OF 60" MIN. WIDTH

FIGURE 11A-1L—CORRIDOR OVER 200 FEET (60 960 mm)

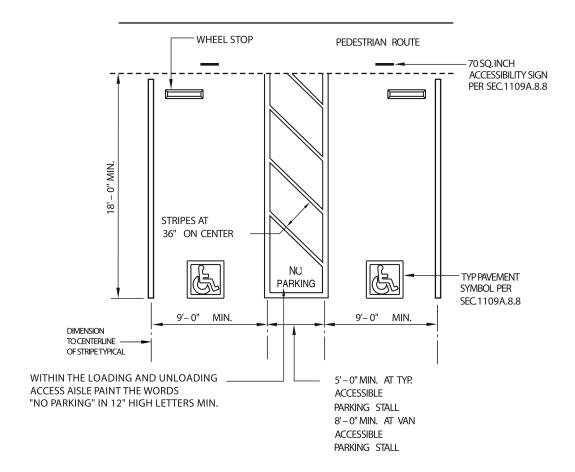


FIGURE 11A-2A—DOUBLE PARKING STALLS

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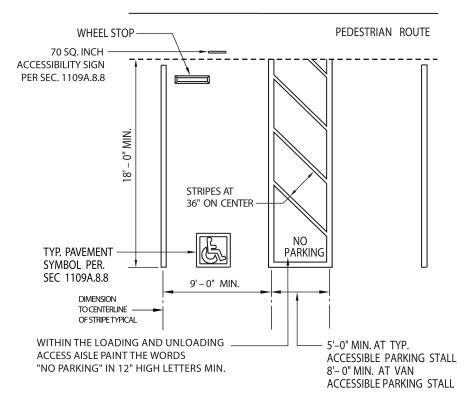
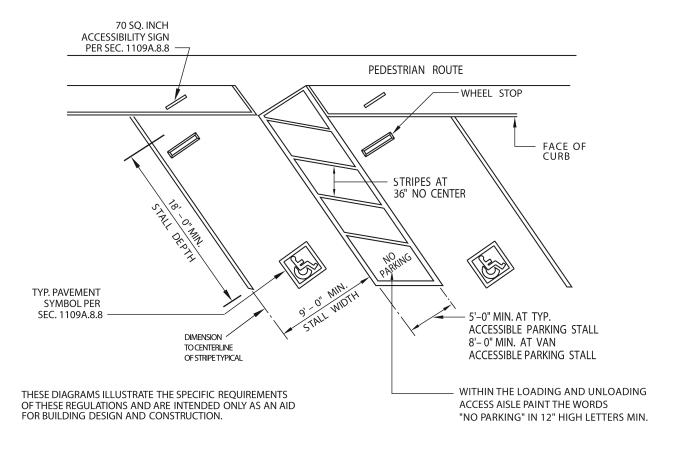
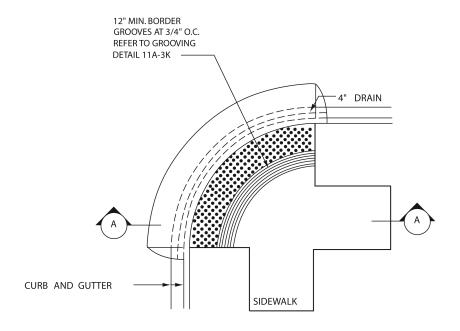
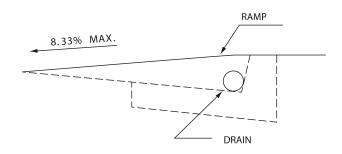


FIGURE 11A-2B—SINGLE PARKING STALLS



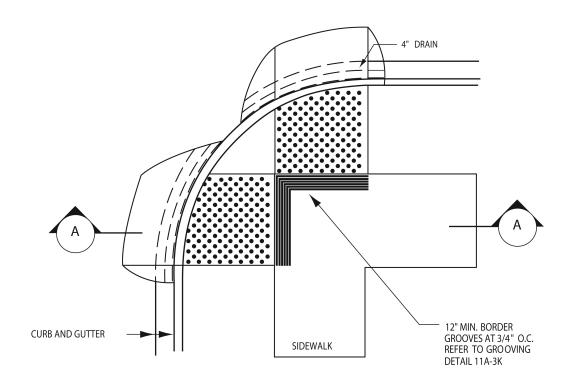




SECTION A-A

FIGURE 11A-3A—CURB DETAILS

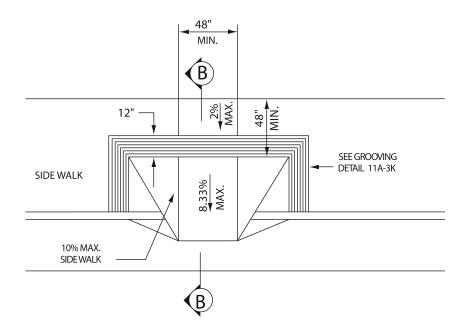
1-134.20.30 OCTOBER 12, 2006 SUPPLEMENT

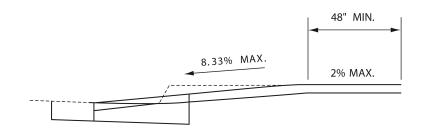


SEE FIGURE 11B-19A

THIS DIAGRAM ILLUSTRATES THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND IS INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11A-3B—CURB DETAIL





SECTION B-B

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11A-3C—CURB DETAIL

1-134.20.32 OCTOBER 12, 2006 SUPPLEMENT

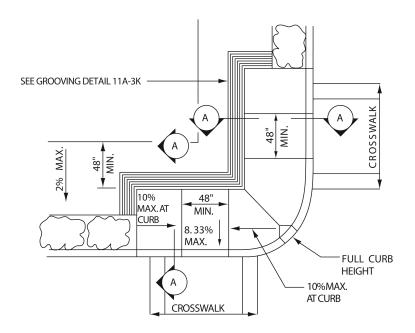


FIGURE 11A-3D—CURB DETAIL

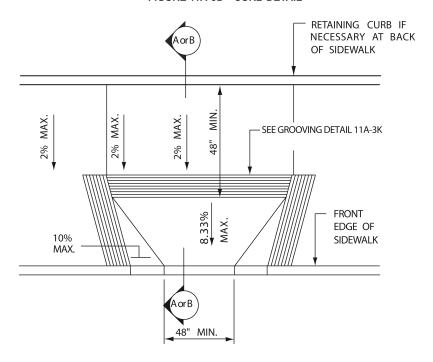


FIGURE 11A-3E—CURB DETAIL

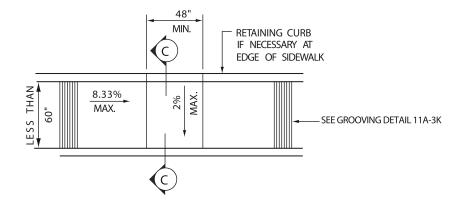


FIGURE 11A-3F—CURB DETAIL

#### SIDEWALK LESS THAN 60" WIDE

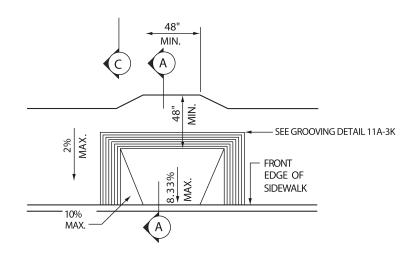


FIGURE 11A-3G—CURB DETAIL

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

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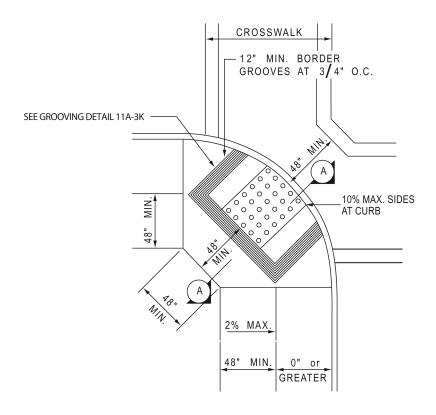


FIGURE 11A-3H—CURB DETAIL

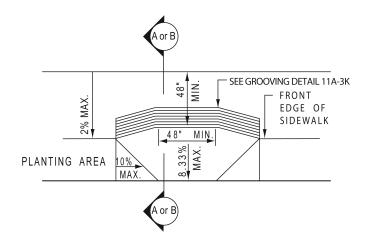


FIGURE 11A-3I—CURB DETAIL

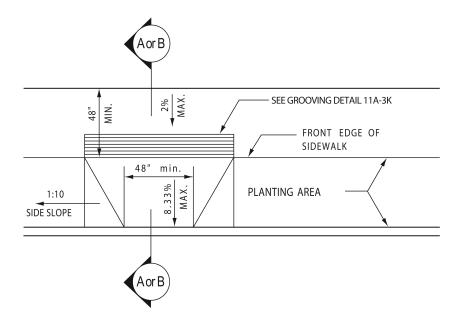
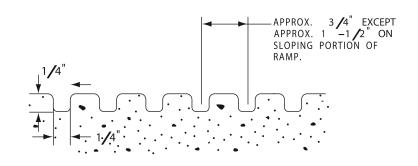


FIGURE 11A-3J—CURB DETAIL

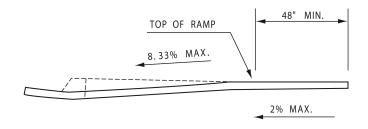


**GROOVING DETAIL** 

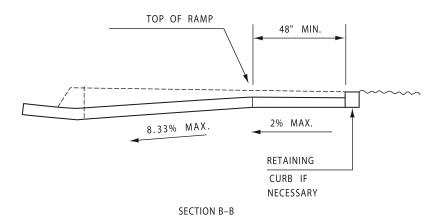
FIGURE 11A-3K—CURB DETAIL

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

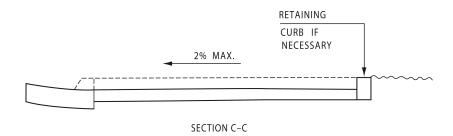
1-134.20.36 OCTOBER 12, 2006 SUPPLEMENT



SECTION A-A



DEPRESS ENTIRE SIDEWALK AS REQUIRED

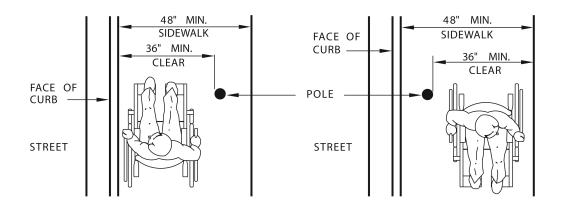


# FIGURE 11A-3L—CURB SECTIONS

FIGURE 11A-3M—RETURNED CURB STYLE (RESERVED)

FIGURE 11A-3N—TRUNCATED DOMES (RESERVED)

FIGURE 11A-4—(RESERVED)



(a) SIDEWALK OBSTRUCTIONS

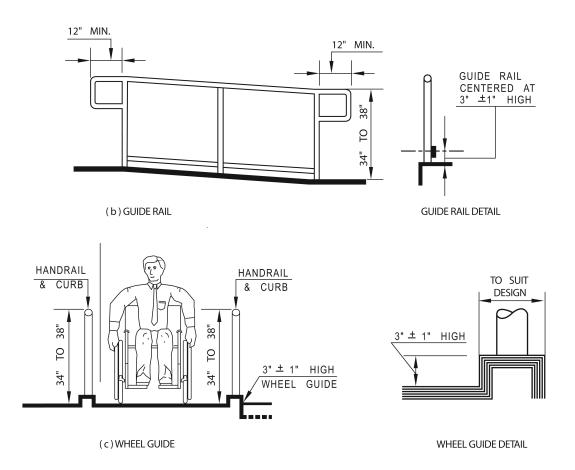
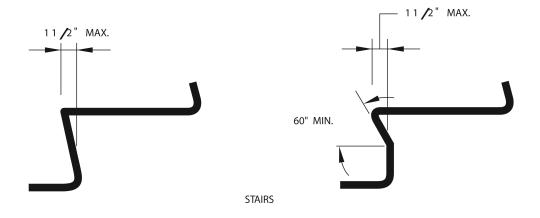
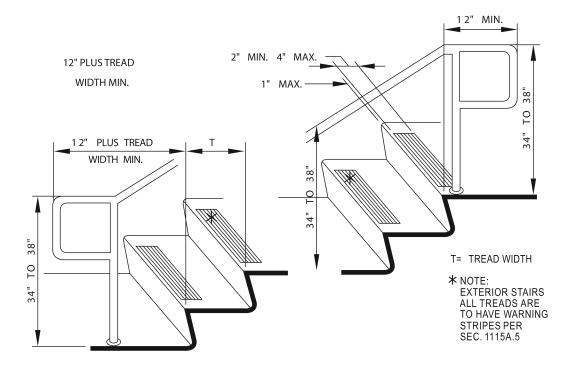


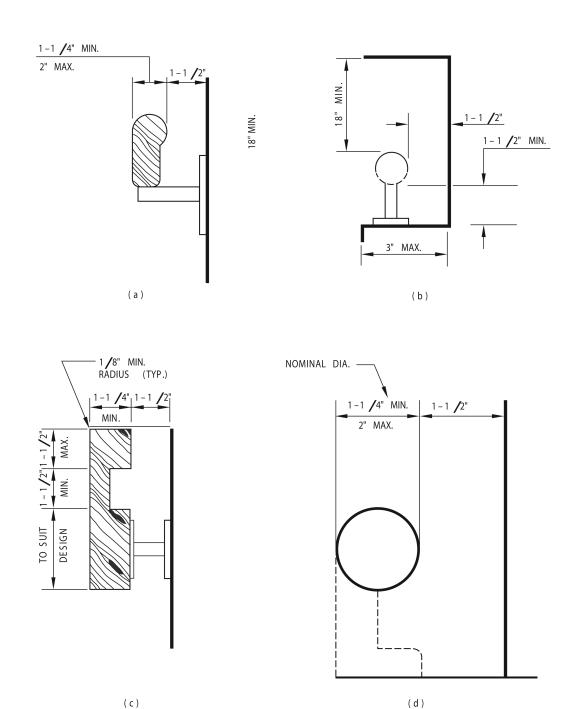
FIGURE 11A-5A—RAMPS AND SIDEWALKS

1-134.20.38 OCTOBER 12, 2006 SUPPLEMENT



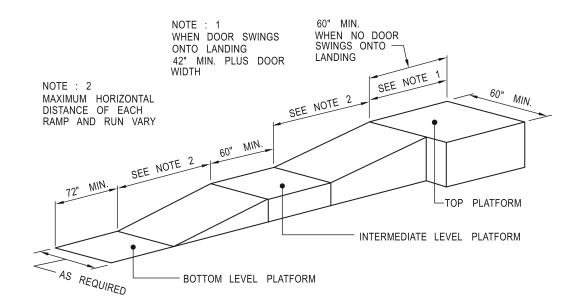


## FIGURE 11A-6A—WARNING STRIPING AND HANDRAIL EXTENSIONS

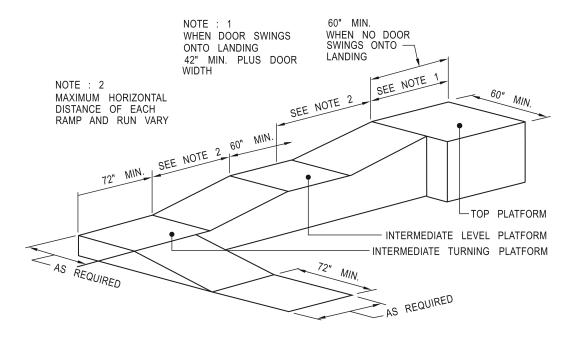


# FIGURE 11A-6B—STAIR HANDRAILS

1-134.20.40 OCTOBER 12, 2006 SUPPLEMENT



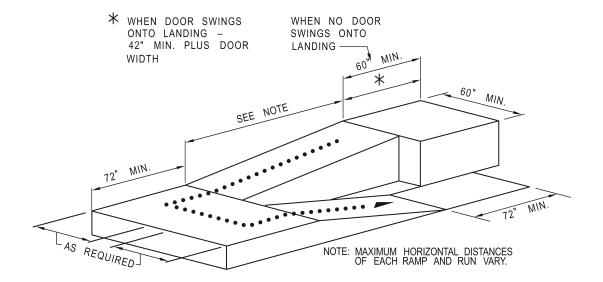
#### (a) STRAIGHT RAMP RUN



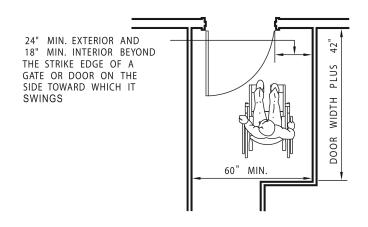
(b) RAMP WITH TURNING PLATFORM

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11A-6C—RAMP DIMENSIONS



# (a) RAMP WITH INTERMEDIATE SWITCH BACK PLATFORM

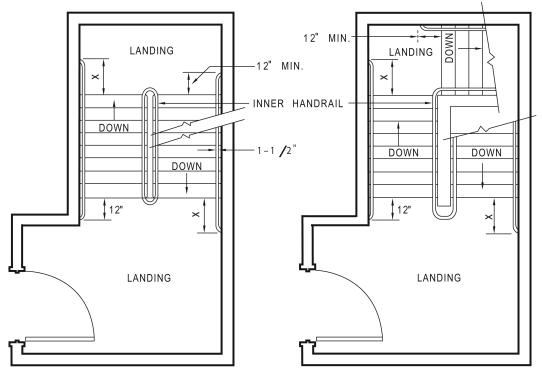


(b) RAMP LANDING AT DOORWAY

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

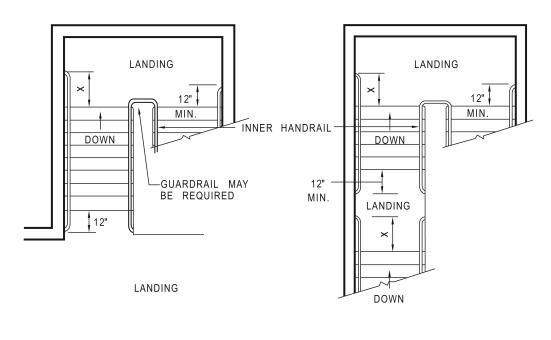
# FIGURE 11A-6D—RAMP LANDING AND DOORWAY

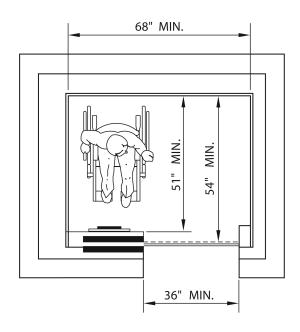
1-134.20.42 OCTOBER 12, 2006 SUPPLEMENT



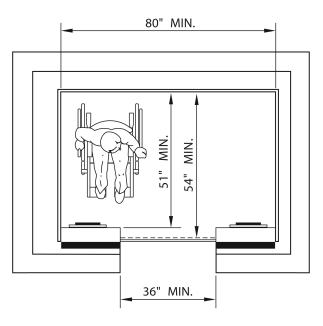
NOTE: INNER HANDRAIL AT LANDINGS OF STAIRS THAT DOUBLE BACK OR IMMEDIATELY TURN SHALL BE CONTINUOUS AND SHALL NOT EXTEND INTO LANDING OR PATH OF TRAVEL.

X : EXTENSION OF HANDRAIL SHALL BE EQUAL TO THE TREAD WIDTH PLUS 12 INCHES.





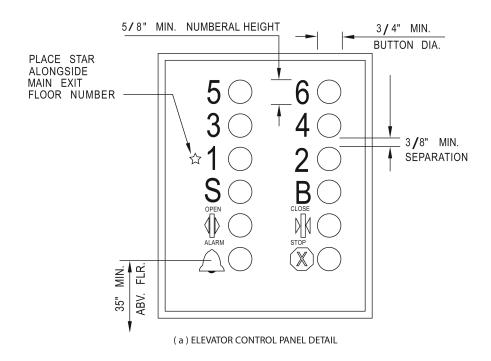
(a) SIDE OPENING DOOR

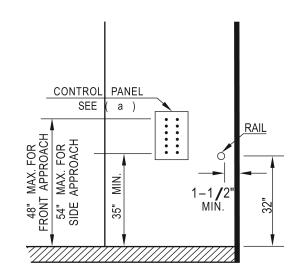


(b) CENTER OPENING DOOR

FIGURE 11A-7A—MINIMUM DIMENSIONS OF ELEVATOR CARS

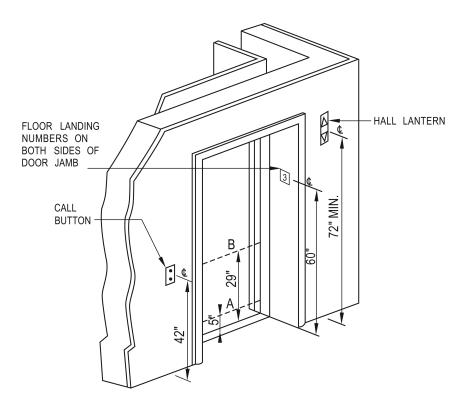
1-134.20.44 OCTOBER 12, 2006 SUPPLEMENT





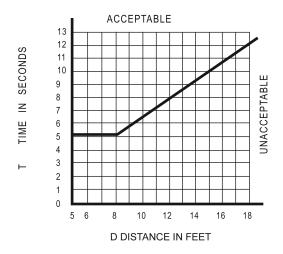
(b) MAXIMUM INSTALLATION HEIGHTS ABOVE CAB FLOOR

FIGURE 11A-7B—ELEVATOR CONTROL PANEL



NOTE:
THE AUTOMATIC DOOR REOPENING DEVICE IS ACTIVATED IF AN OBJECT PASSES
THROUGH EITHER LINEA OR LINE B. LINE A AND LINE B REPRESENT THE VERTICAL
LOCATION OF THE DOOR REOPENING DEVICE NOT REQUIRING CONTACT.

### FIGURE 11A-7C—HOISTWAY AND ELEVATOR ENTRANCES



THIS DIAGRAM ILLUSTRATES THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND IS INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11A-7D—GRAPH OF TIMING EQUATION

1-134.20.46 OCTOBER 12, 2006 SUPPLEMENT

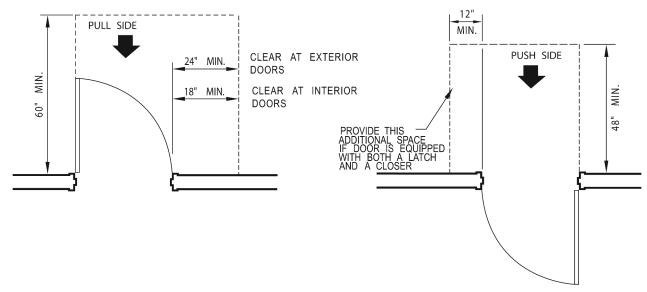
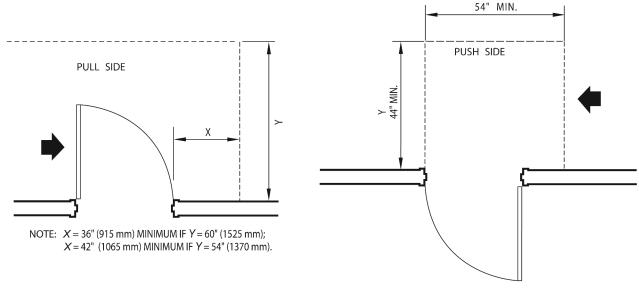


FIGURE 11A-8A—FRONT APPROACHES - SWINGING DOORS

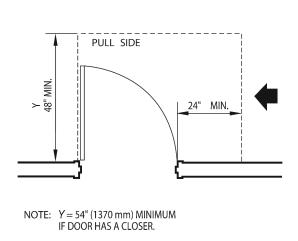


NOTE: Y = 48" (1220 mm) MINIMUM IF DOOR HAS BOTH A LATCH AND A CLOSER.

# FIGURE 11A-8B—HINGE SIDE APPROACHES — SWINGING DOORS

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

LEVEL MANEUVERING CLEARANCE AT DOORS



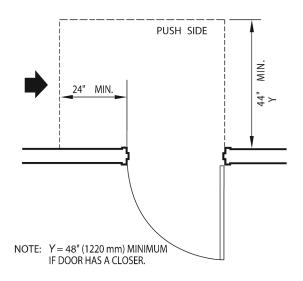
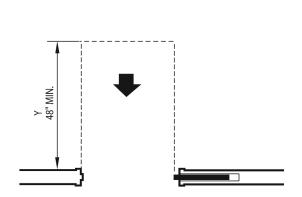


FIGURE 11A-8C—LATCH SIDE APPROACHES - SWINGING DOORS



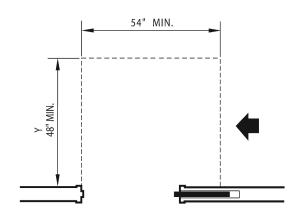


FIGURE 11A-8D—FRONT APPROACH - SLIDING DOORS AND FOLDING DOORS

FIGURE 11A-8E—SLIDE-SIDE APPROACH - SLIDING DOORS AND FOLDING DOORS

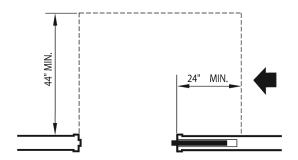
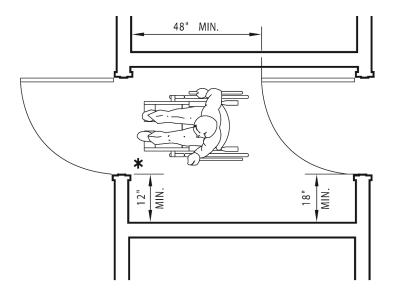


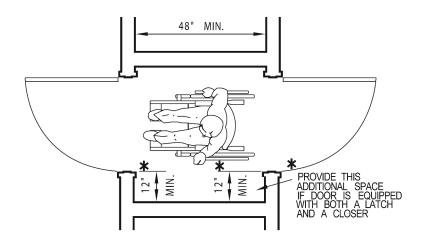
FIGURE 11A-8F—LATCH-SIDE APPROACH - SLIDING DOORS AND FOLDING DOORS

LEVEL MANEUVERING CLEARANCE AT DOORS (Continued)

1-134.20.48 OCTOBER 12, 2006 SUPPLEMENT



(a) DOOR IN SERIES

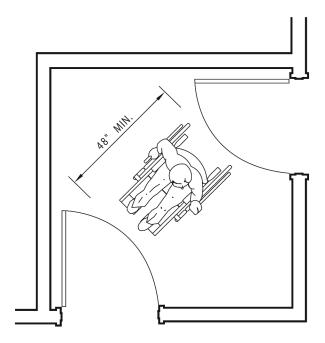


(b) BOTH DOORS OPEN OUT

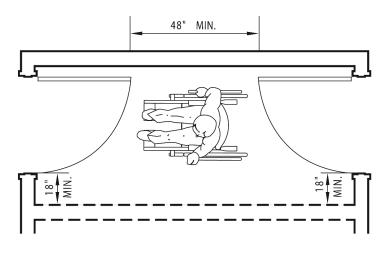
(SERVING OTHER THAN A REQUIRED EXIT STAIRWAY)

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11A-8G—VESTIBULE



(a) DOORS AT ADJACENT WALLS



(b) DOORS AT OPPOSITE WALLS

FIGURE 11A-8H—VESTIBULE (SERVING OTHER THAN A REQUIRED EXIT STAIRWAY)

1-134.20.50 OCTOBER 12, 2006 SUPPLEMENT

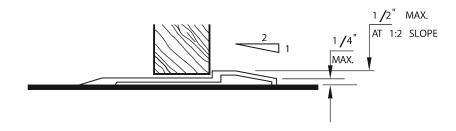


FIGURE 11A-8I—THRESHOLDS

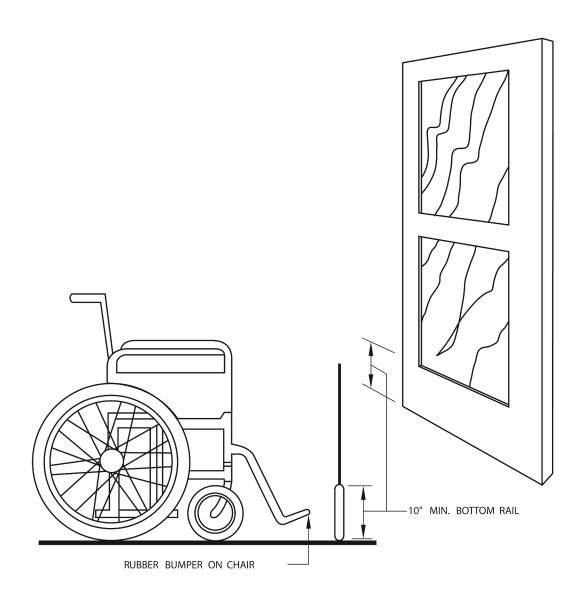


FIGURE 11A-8J—DOOR CONSTRUCTION

1-134.20.52 OCTOBER 12, 2006 SUPPLEMENT

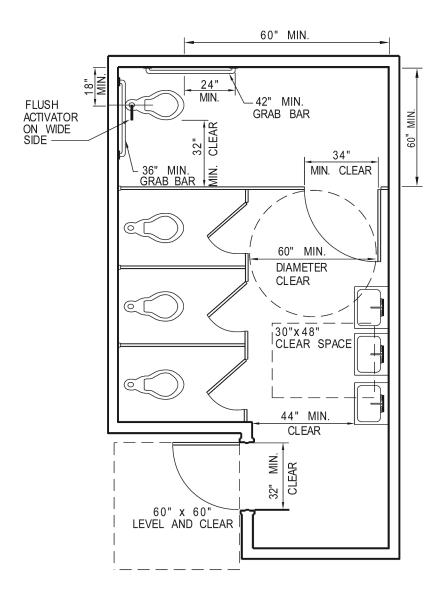
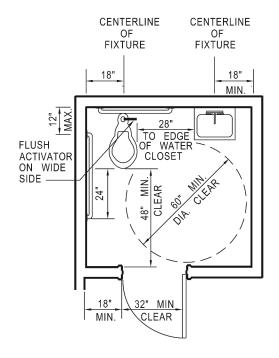
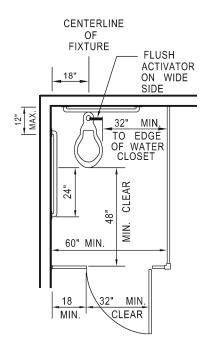


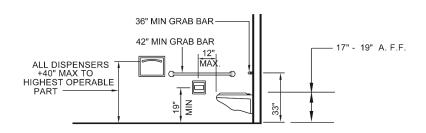
FIGURE 11A-9A—MULTIPLE-ACCOMMODATION TOILET FACILITY





SINGLE-ACCOMMODATION TOILET FACILITY

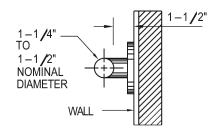
ACCESSIBLE WATER CLOSET COMPARTMENT WITHIN A MULTIPLE-ACCOMMODATION TOILET FACILITY



SIDE ELEVATION

FIGURE 11A-9B

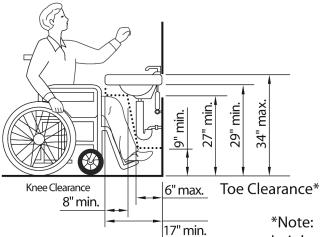
1-134.20.54 OCTOBER 12, 2006 SUPPLEMENT



SECTION THROUGH TYPICAL GRAB BAR

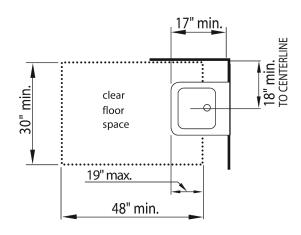
THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION

FIGURE 11A-9C—GRAB BAR SECTION



# SIDE ELEVATION

\*Note: If a minimum 9 inches height of toe clearance is provided, a maximum of 6 inches of the 48 inches of clear floor space required at the fixture may extend into the toe space.

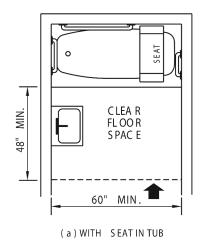


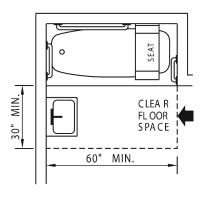
**PLAN VIEW** 

THIS DIAGRAM ILLUSTRATES THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND IS INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

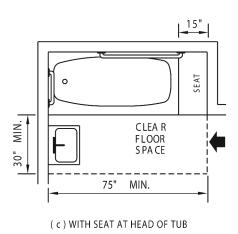
FIGURE 11A-9D—KNEE CLEARANCE

1-134.20.56 OCTOBER 12, 2006 SUPPLEMENT



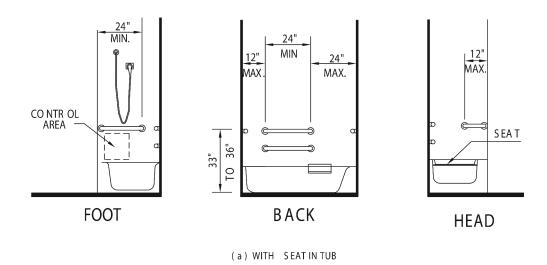


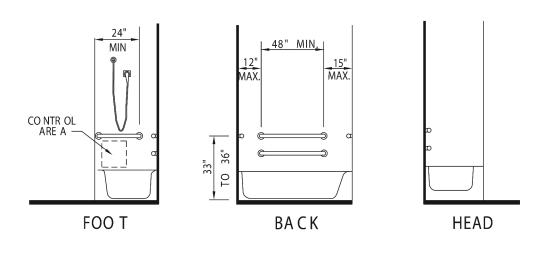
(b) WITH SEAT IN TUB



THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11A-9E—CLEAR FLOOR SPACE AT BATHTUBS





( b ) WITH SEAT AT HEAD OF TUB

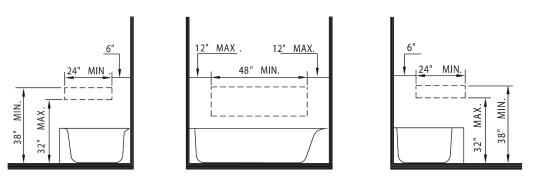
THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11A-9F—GRAB BARS AT BATHTUBS

1-134.20.58 OCTOBER 12, 2006 SUPPLEMENT

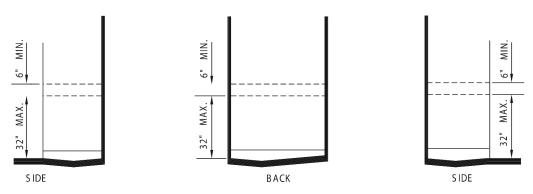


# (a) WATER CLOSET IN ADAPTABLE BATHROOMS



NOTE: THE AREA OUTLINED IN DASHED LINES REPRESENT LOCATIONS FOR FUTURE INSTALLATION OF GRAB BARS FOR TYP. FIXTURE CONFIGURATIONS

# (b) LOCATION OF GRAB BAR REINFORCEMENTS FOR ADAPTABLE BATHTUBS



NOTE: THE AREA OUTLINED IN DASHED LINES REPRESENT LOCATION FOR FUTURE INSTALLATION OF GRAB BARS

# (c) LOCATION OF GRAB BAR REINFORCEMENTS FOR ADAPTABLE SHOWERS

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11A-9G

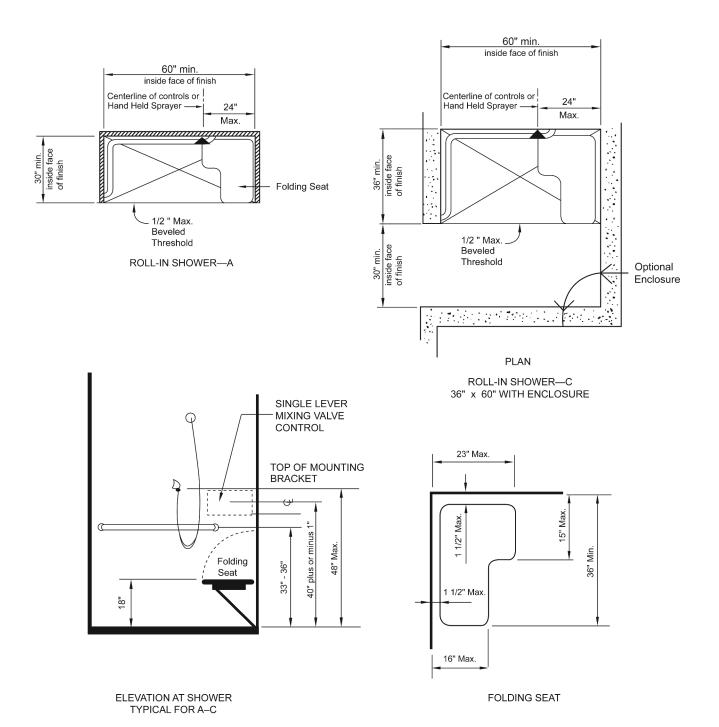
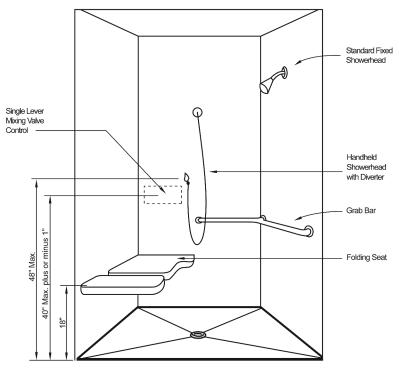


FIGURE 11A-9H—ROLL-IN SHOWER

1-134.20.60 OCTOBER 12, 2006 SUPPLEMENT



PERSPECTIVE OF ROLL-IN SHOWER—B 42" x 48" CALIFORNIA SIZE

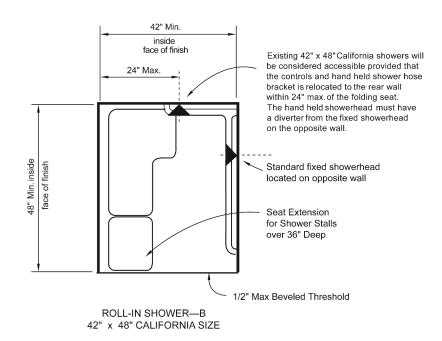
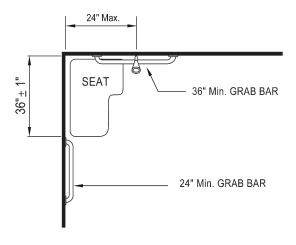
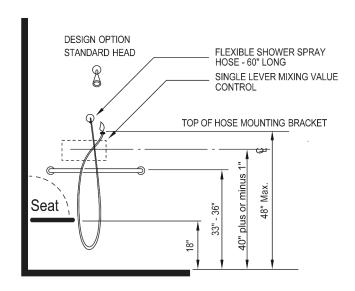


FIGURE 11A-9I—ROLL-IN SHOWER



PLAN

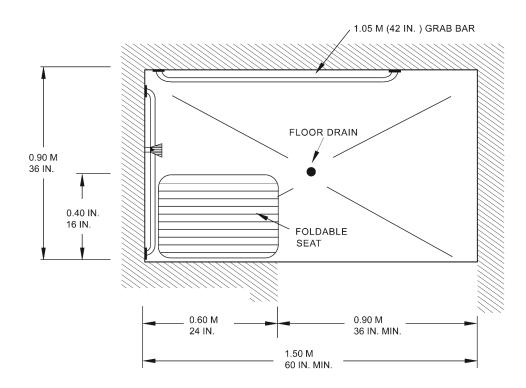


**ELEVATION** 

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION

FIGURE 11A-9J—OPEN SHOWER

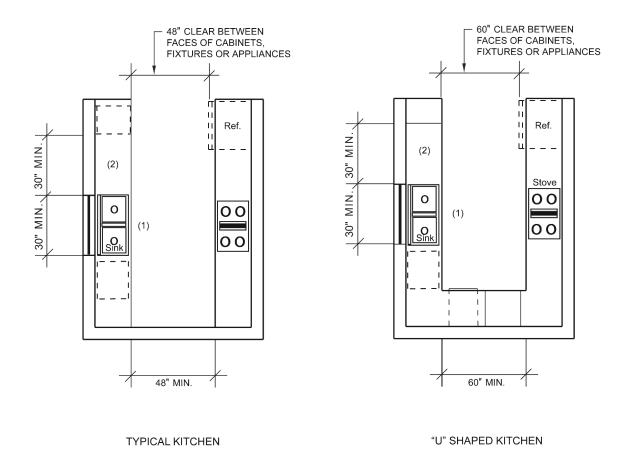
1-134.20.62 OCTOBER 12, 2006 SUPPLEMENT



THIS DIAGRAM ILLUSTRATES THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND IS INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11A-9K—ALTERNATIVE ROLL-IN

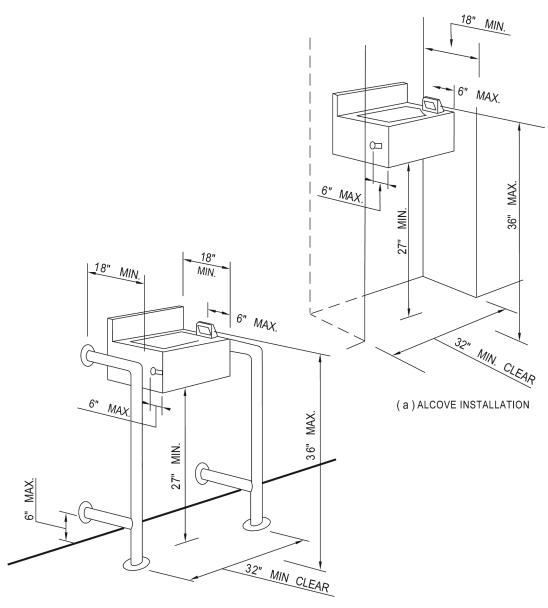
OCTOBER 12, 2006 SUPPLEMENT 1-134.20.63



- (1) 30 inch wide counter top space for sink installation with removable base cabinet and finish flooring beneath sink
- (2) 30 inch wide counter top workspace
- (3) 30 inch by 48 inch clear space adjacent to range or cooktop to allow parallel approach
- (4) 30 inch by 48 inch either parallel approach at oven, dishwasher, trash compactor or refrigerator

FIGURE 11A-10A—KITCHEN SPECIFICATIONS

1-134.20.64 OCTOBER 12, 2006 SUPPLEMENT

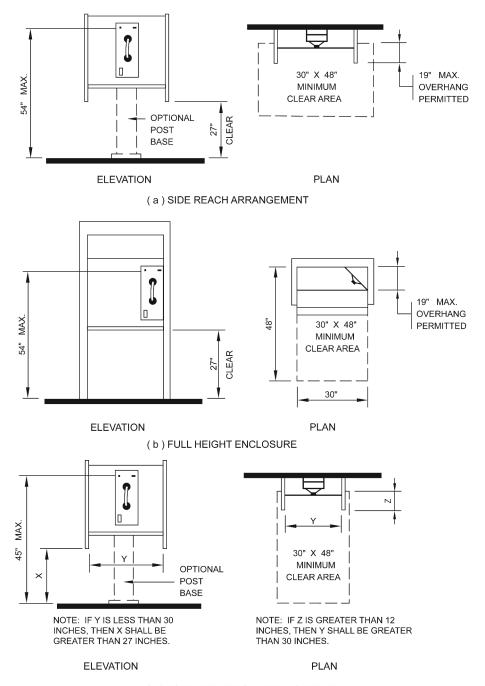


(b) NONALCOVE WING WALL INSTALLATION

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION

FIGURE 11A-11A—WATER FOUNTAINS

OCTOBER 12, 2006 SUPPLEMENT 1-134.20.65



(c) FORWARD REACH ARRANGEMENT

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION

#### FIGURE 11A-11B—MOUNTING HEIGHTS AND CLEARANCES FOR TELEPHONES

1-134.20.66 OCTOBER 12, 2006 SUPPLEMENT



#### FIGURE 11A-11C— INTERNATIONAL TTY SYMBOL



#### FIGURE 11A-11D—VOLUME CONTROL TELEPHONES



#### FIGURE 11A-11E— INTERNATIONAL SYMBOL OF ACCESS FOR HEARING LOSS

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

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# Chapter 11B [For DSA/AC] ACCESSIBILITY TO PUBLIC BUILDINGS, PUBLIC ACCOMMODATIONS, COMMERCIAL BUILDINGS AND PUBLICLY FUNDED HOUSING

NOTE: For housing accessibility, see Chapter 11A.

#### Division I—NEW BUILDINGS

#### SECTION 1101B — SCOPE

See Chapter 1, Section 101.17.11.

1101B.1 General. Buildings or portions of buildings shall be accessible to persons with disabilities as required by this chapter.

1101B.2 Design. The design and construction of accessible building elements shall be in accordance with this chapter and sections that are listed in Section 1114B.1.1.

#### 1101B.3 Maintenance of Accessible Features.

- 1. A public accommodation shall maintain in operable working condition those features of facilities and equipment that are required to be accessible to and usable by persons with disabilities.
- 2. This section does not prohibit isolated or temporary interruptions in service or access due to maintenance or repairs.

1101B.4 Dimensional Tolerances. All dimensions are subject to conventional building industry tolerances for field conditions.

#### SECTION 1102B — DEFINITIONS

For the purpose of the chapter, certain terms are defined as follows:

ACCESSIBILITY is the combination of various elements in a building or area, which allows access, circulation and the full use of the building and facilities by persons with disabilities.

**ACCESSIBLE** is approachable and usable by persons with disabilities in compliance with this code.

ACCESSIBLE ROUTE OF TRAVEL is a continuous unobstructed path connecting all accessible elements and spaces in an accessible building or facility that can be negotiated by a person with a severe disability using a wheelchair and that is also safe for and usable by persons with other disabilities, and that is consistent with the definition of "path of travel" in Section 217.

ADAPTABILITY refers to the capability of spaces or facilities to be readily modified and made accessible.

**AREA FOR EVACUATION ASSISTANCE** is an accessible space which is protected from fire and smoke and which facilitates a delay in egress.

**AUTOMATIC DOOR** is a door equipped with a power-operated mechanism and controls that open and close the door automatically upon receipt of a momentary actuating signal. The switch that begins the automatic cycle may be a photoelectric device, floor mat or manual switch.

**COMMON USE AREAS** are public areas where the uses of the space is not limited exclusively to owners, residents or individual employees.

**CROSS SLOPE** is the slope that is perpendicular to the direction of travel.

**CURB CUT** is an interruption of a curb at a pedestrian way, which separates surfaces that are substantially at the same elevation.

CURB LINE is a line at the face of the curb that marks the transition between the sidewalk and the gutter or roadway.

CURB RAMP is a sloping pedestrian way, intended for pedestrian traffic, which provides access between a walk or sidewalk to a surface located above or below an adjacent curb face.

**DETECTABLE WARNING** is a standardized surface or feature built into or applied to walking surfaces or other elements to warn visually impaired persons of hazards in the path of travel. Only approved DSA/AC detectable warning products and directional surfaces shall be installed as provided in the California Code of Regulations (CCR). Title 24, Part 1, Articles 2, 3 and 4. Refer to CCR Title 24, Part 12, Chapter 12-11A and B, for building and facility access specifications for product approval for detectable warning products and directional surfaces.

NOTE: Detectable warning products and directional surfaces installed after January 1,2001, shall be evaluated by an independent entity, selected by the Department of General Services, Division of the State Architect-Access Compliance, for all occupancies, including transportation and other outdoor environments, except that when products and surfaces are for use in residential housing evaluation shall be in consultation with the Department of Housing and Community Development. See Government Code Section 4460.

**DWELLING UNIT** is a single unit of residence for a family of one or more persons. Examples of dwelling units covered by this chapter include condominiums, an apartment unit within an apartment building, and other types of dwellings in which sleeping accommodations are provided but toileting or cooking facilities are shared by occupants of more than one room or portion of the dwelling. Examples of the latter include dormitory rooms and sleeping accommodations in shelters intended for occupancy as residences for homeless persons.

**ELEVATOR, PASSENGER** is an elevator used primarily to carry passengers.

**EQUIVALENT FACILITATION** is an alternate means of complying with the literal requirements of these standards and specifications that provides access in terms of the purpose of these standards and specifications.

NOTES: 1. See Section 101.2, Purpose.

2. In determining equivalent facilitation, consideration shall be given to means that provide for the maximum independence of persons with disabilities while presenting the least risk of harm, injury or other hazard to such persons or others.

**FACILITY (or FACILITIES)** is a building, structure, room, site, complex or any portion thereof, that is built, altered, improved or developed to serve a particular purpose.

**GRAB BAR** is a bar for the purpose of being grasped by the hand for support.

HANDRAIL is a device to be used as a hand hold.

INDEPENDENT ENTITY. See Chapter 2, Section 210-I.

NOTE: Detectable warning products and directional surfaces installed after January 1, 2001, shall be evaluated by an independent entity, selected by the Department of General Services, Division of the State Architect-Access Compliance, for all occupancies, including transportation and other outdoor environments, except that when products and surfaces are for use in residential housing evaluation shall be in consultation with the Department of Housing and Community Development. See Government Code Section 4460.

INTERNATIONAL SYMBOL OF ACCESSIBILITY is that symbol adopted by Rehabilitation International's 11th World Con-

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gress for the purpose of indicating that buildings and facilities are accessible to persons with disabilities. See Chapter 11B, Figure 11B-6.

KICK PLATE is an abrasion-resistant plate affixed to the bottom portion of a door to prevent a trap condition and protect its surface.

**LEVEL AREA** is a specified surface that does not have a slope in any direction exceeding  $^{1}/_{4}$  inch (6.4 mm) in 1 foot (305 mm) from the horizontal (2.083 percent gradient).

LIFT, SPECIAL ACCESS. See "Special Access Lift."

MARKED CROSSING is a crosswalk or other identified path intended for pedestrian use in crossing a vehicular way.

**NEWLY CONSTRUCTED.** See Chapter 11A, Section 1107A.14-N.

**NOSE**, **NOSING**, is that portion of a tread projecting beyond the face of the riser immediately below.

**OPEN RISER** is the air space between tread projecting beyond the face of the riser immediately below.

**PASSAGE DOOR** is a door other than an exit door through which persons may traverse.

**PEDESTRIAN** is an individual who moves in walking areas with or without the use of walking-assistive devices such as crutches, leg braces, wheelchairs, etc.

**PEDESTRIAN RAMP** is a sloping path of travel intended for pedestrian traffic and as differentiated from a curb ramp.

PEDESTRIAN WAY is a route by which a pedestrian may pass.

**PRIMARY ENTRY LEVEL** is the floor or level of the building on which the primary entry is located.

PUBLIC USE AREA. See Chapter 11A, Section 1107A.16-P.

**RISER** is the vertical distance from the top of the tread to the top of the next higher tread.

SLEEPING ACCOMMODATIONS are rooms in which people may sleep; for example, dormitory and hotel or motel guest rooms or suites.

SPECIAL ACCESS LIFT is a hoisting and lowering mechanism equipped with a car or platform, or support that serves two landings of a building or structure and is designed to carry a passenger or passengers and (or) luggage or other material a vertical distance as may be allowed.

STAIR RAILING is a vertical barrier constructed along the open side or sides of stairways and as intermediate stair rails where required on wide stairways.

**TREAD** is the horizontal member of a step.

**TREAD DEPTH** is the horizontal distance from the front to back of tread, including nosing when used.

TREAD RUN is the horizontal distance from the leading edge of a tread to the leading edge of an adjacent tread.

**NOTE:** For additional definitions pertinent to the Division of the State Architect/Access Compliance accessibility requirements, see Chapter 2.

WALK is a surfaced pedestrian way not located contiguous to a street used by the public. (See definition for "sidewalk.")

**NOTE:** For additional definitions pertinent to the Division of the State Architect-Access Compliance accessibility requirements, see Chapter 2.

#### SECTION 1103B — BUILDING ACCESSIBILITY

1103B.1 General. Accessibility to buildings or portions of buildings shall be provided for all occupancy classifications except as modified or enhanced by this chapter. Occupancy requirements in this chapter may modify general requirements, but never to the exclusion of them. Multistory buildings must provide access by ramp or elevator.

In new construction of buildings and only where elevators are required, pursuant to Section 1103B.1, and which exceed 10,000 square feet on any floor, an accessible means of vertical access via ramp, elevator or lift shall be provided within 200 feet of travel of each stairs and each escalator. In existing buildings that exceed 10,000 square feet on any floor and in which elevators are otherwise required pursuant to Section 1103B.1, whenever a newly constructed means of vertical access is provided via stairs or an escalator, an accessible means of vertical access via ramp, elevator or lift shall be provided within 200 feet of travel of each new stairs or escalator.

**EXCEPTIONS:** 1. This section shall not apply with respect to stairs used solely for emergency egress.

- 2. Floors or portions of floors not customarily occupied, including, but not limited to, nonoccupiable or employee spaces accessed only by ladders, catwalks, crawl spaces, very narrow passageways or freight (nonpassenger) elevators, and frequented only by service personnel for repair or maintenance purposes: such spaces as elevator pits and elevator penthouses, piping and equipment catwalks and machinery rooms. Stair striping shall be required on stairs.
- 3. The following types of privately funded multistory buildings do not require a ramp or elevator above and below the first floor:
  - 3.1 Multistoried office buildings (other than the professional office of a health care provider) and passenger vehicle service stations less than three stories high or less than 3,000 square feet (279 m²) per story.
  - 3.2 Any other privately funded multistoried building that is not a shopping center, shopping mall or the professional office of a health care provider, and that is less than three stories high or less than 3,000 square feet (279 m²) per story if a reasonable portion of all facilities and accommodations normally sought and used by the public in such a building are accessible to and usable by persons with disabilities.

### SECTION 1104B — ACCESSIBILITY FOR GROUP A OCCUPANCIES

1104B.1 General. All Group A Occupancies shall be accessible as provided in this chapter. See also the general requirements listed in Section 1114B.1.1.

1104B.2 Assistive-listening Systems in Assembly Areas. Assembly areas, conference and meeting rooms shall provide assistive-listening systems for persons with hearing impairments as provided in this section.

**EXCEPTION:** This section does not apply to systems used exclusively for paging, or background music, or a combination of these two uses.

- 1. Number of personal receivers required. The minimum number of receivers to be provided shall be equal to 4 percent of the total number of seats, but in no case less than two.
- 2. **Types of listening systems.** Types of assistive-listening systems include, but are not limited to, audio-induction loops, radio frequency systems (AM or FM) and infrared transmission.
- 3. **Location.** If the assistive-listening system provided is limited to specific areas or seats, then such areas or seats shall be within a 50-foot (15 240 mm) viewing distance of the performing area.
- 4. **Signage.** A sign shall be posted in a prominent place indicating the availability of assistive-listening devices. The sign shall include the international symbol of access for hearing loss and wording that states "Assistive-listening System Available." See Figure 11B-14.

- 5. Fees and charges. Nothing in this section shall preclude a facility charging for such assistive-listening system its usual fee for audiovisual equipment. However, no surcharge may be placed directly on any particular individual with a disability or any group of individuals with disabilities to cover the costs of such equipment.
- 6. **Portable systems.** If portable assistive-listening systems are used for conference or meeting rooms, the system may serve more than one room. However, permanently installed assistive-listening systems are required in areas if (1) they accommodate at least 50 persons or if they have audio-amplification systems, and (2) they have fixed seating.
- 1104B.3 Auditoriums, Assembly Halls, Theaters and Related Facilities.
- 1104B.3.1 Seating. In all assembly places where seating is provided, there shall be spaces for persons using wheelchairs and semiambulant persons, as provided in this section.
  - EXCEPTIONS: 1. In existing buildings and facilities when the enforcing agency determines that compliance with the seating requirements of this code would create an unreasonable hardship, such requirements shall not apply. When the unreasonable hardship finding is applied, at least 1 percent of the total seating provided shall be accessible to and usable by persons with disabilities who use wheelchairs and such seating shall comply with the level requirements and the individual space requirements of this code.
  - 2. When an existing theater is subdivided into more than one facility having upper levels not accessible by ramp or elevator, and the enforcing agency determines that full compliance with this code would create an unreasonable hardship, such upper levels need not be made accessible, provided all facilities at grade are accessible and any event, showing of motion pictures or other activities made available to the public in all of the facilities are scheduled to ensure that all such functions are available to the public in the accessible facility.
- 1104B.3.2 Accessibility to key facilities. Seating for persons with disabilities shall be accessible from the main lobby or from a primary entrance, together with related toilet facilities.
- 1104B.3.3 Variety of locations. Accessible seating or accommodations in places of public amusement and resort, including theaters, concert halls and stadiums, but not including hotels and motels, shall be provided in a variety of locations so as to provide persons with disabilities a choice of admission prices otherwise available to members of the general public.

### 1104B.3.4 Wheelchair spaces.

1. The number of such spaces is as shown in Table 11B-1.

TABLE 11B-1—WHEELCHAIR SEATING SPACES

SEATING CAPACITY	NO. OF WHEELCHAIR SEATING SPACES
4 to 26	1
27 to 50	2
51 to 300	4
301 to 500	6

In addition, 1 percent, but not less than one, of all fixed seats, shall be aisle seats with no armrests on the aisle side, or removable or folding armrests on the aisle side. Each such seat shall be identified by a sign or marker. Signage notifying patrons of the availability of such seats shall be posted at the ticket office.

- 2. When the seating capacity exceeds 500, one additional wheelchair seating space shall be provided for each total seating capacity increase of 100.
- 3. The ground or floor at spaces shall be level and shall comply with Section 1124B.
- 1104B.3.5 Placement of wheelchair locations. Wheelchair areas shall be an integral part of any fixed seating plan, and shall

be arranged so as to provide persons with disabilities a choice of admission prices and lines of sight comparable to those for members of the general public. Each wheelchair area shall adjoin an accessible route which shall also serve as a means of egress in case of emergency. At least one companion fixed seat shall be provided next to each wheelchair seating area. When the seating capacity exceeds 300, wheelchair spaces shall be provided in more than one location in addition to complying with Section 1104B.3.3.

EXCEPTION: Accessible viewing positions where seating capacity is less than 300 may be clustered for bleachers, balconies and other areas having sight lines that require slopes of greater than 5 percent. Equivalent accessible viewing positions may be located on levels having accessible egress.

- 1104B.3.6 Size of wheelchair location. Each wheelchair location shall provide minimum clear floor or ground space as shown in Figure 11B-15, and shall adjoin an egress aisle on at least one side.
- 1104B.3.7 Removable seats. Readily removable seats may be installed in these wheelchair spaces when such spaces are not required to accommodate wheelchair users.
- 1104B.3.8 Seating for semiambulant individuals. In addition to spaces provided for wheelchair users as noted in Sections 1104B.3.4 through 1104B.3.7 above, there shall be provided seating for semiambulant individuals. The number of such seating shall be equal to at least 1 percent of the total seating and shall be no fewer than two. Such seats shall provide at least 24 inches (610 mm) clear leg space between the front of the seat to the nearest obstruction or to the back of the seat immediately in front.
- 1104B.3.9 Life safety. In determining the location of seating for persons with disabilities, life safety shall be considered, and all seating provided must comply with the fire and panic safety requirements of the state fire marshal.
- 1104B.3.10 Access to performing areas. An accessible route shall connect wheelchair seating locations with performing areas, including stages, arena floors, dressing rooms, locker rooms and other spaces used by performers.
- 1104B.3.11 Stages, enclosed and unenclosed platforms, and orchestra pits. Stages, enclosed and unenclosed platforms, and orchestra pits shall be made accessible to persons with disabilities.
  - EXCEPTIONS: 1. When the enforcing agency finds that requiring compliance with this code, for an enclosed or unenclosed platform or depressed area not more than 24 inches (610 mm) above or below an adjacent accessible level, would create an unreasonable hardship, the enclosed and unenclosed platform or depressed area shall be made accessible by a portable ramp with a slope not exceeding 1 unit vertical to 12 units horizontal (8.33% slope).
  - 2. In existing buildings and facilities, all stages, enclosed or unenclosed platforms, and orchestra pits need not be accessible when the enforcing agency determines that compliance with this code would create an unreasonable hardship.
- 1104B.3.12 Ticket booths. Customer and employee sides of ticket booths and of concession and refreshment sales facilities shall be made accessible to persons with disabilities.
- 1104B.3.13 Miscellaneous areas. Public toilets and other public areas shall be made accessible to persons with disabilities.
- 1104B.4 Stadiums, Grandstands, Bleachers, Athletic Pavilions, Gymnasiums and Miscellaneous Sport-related Facilities.
- 1104B.4.1 Spectator seating. Spectator seating shall comply with Section 1104B.3.
- 1104B.4.2 Ticket booth. The customer side of a ticket booth shall be, and the employee side may be, accessible.

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- 1104B.4.3 Participation areas. Participation areas shall be accessible to persons with disabilities, including the following listed and similar activity areas:
  - 1. Tennis, racquetball and handball courts.
  - 2. Gymnasium floor areas and general exercise rooms.
- 3. Basketball, volleyball and badminton courts, and bowling lanes.
- 4. Swimming pool deck areas must be accessible, and a mechanism to assist persons with disabilities in gaining entry into the pool and in exiting from the pool shall be provided. Such a mechanism may consist of a swimming pool lift device as long as the device meets all of the following criteria:
  - 4.1 Have a seat that meets all of the following:
    - 4.1.1 The seat must be rigid;
    - 4.1.2 The seat must be not less than 17 inches (423 mm) and not more than 19 inches (483 mm), inclusive of any cushioned surface that might be provided, above the pool deck;
    - 4.1.3 The seat must have two armrests. The armrest on the side of the seat by which access is gained shall be either removable or fold clear of the seat;
    - 4.1.4 The seat must have a back support that is at least 12 inches (305 mm) tall;
    - 4.1.5 The seat must have an occupant restraint for use by the occupant of the seat, and the restraint must meet the standards for operable controls in compliance with Section 1117B.6 Items 1 through 4.
  - 4.2 Be capable of unassisted operation from both the deck and water levels.
  - 4.3 Be stable and not permit unintended movement when a person is getting into or out of the seat.
  - 4.4 Be designed to have a live-load capacity of not less than 300 pounds.
  - 4.5 Be positioned so that, if the pool has water of different depths, it will place the operator into water that is at least three feet (914 mm) deep.
  - 4.6 Lower the operator at least 18 inches (457 mm) below the surface of the water.
- 5. Athletic team rooms and facilities, playing fields and running tracks.
- 1104B.4.4 Clubrooms. Clubrooms shall be made accessible to persons with disabilities.
- 1104B.4.5 Sanitary and locker facilities. Where spectator and/or participant sanitary and/or locker facilities are provided, they shall conform with the requirements in Sections 1115B and 1116B.
  - **EXCEPTIONS:** 1. Where the enforcing agency determines that compliance with these regulations would create an unreasonable hardship, an exception may be granted when equivalent facilitation is provided through the use of other methods or materials.
  - 2. In existing buildings, when the enforcing agency finds that compliance with regulations would create an unreasonable hardship, an exception may be granted when all of the following minimum conditions are met:
    - 2.1 When the total seating does not exceed 5,000 at least 1 percent of such seating shall be accessible to and usable by persons with disabilities. When the total seating provided exceeds 5,000, one additional seat for each 2,000 seats provided over 5,000 shall be accessible to and usable by persons with disabilities.
    - 2.2 Sanitary facilities, ticket booths, clubrooms, concessions and refreshment facilities are accessible.

2.3 One of each type of participation area is usable and accessible.

#### 1104B.5 Dining, Banquet and Bar Facilities.

1. **General.** Dining, banquet, and bar facilities shall be made accessible to persons with disabilities as provided in this section.

**EXCEPTIONS:** 1. In existing buildings, when the enforcing agency determines that compliance with any regulation under this section would create an unreasonable hardship, an exception shall be granted when equivalent facilitation is provided.

- 2. In existing buildings, these regulations shall not apply when legal or physical constraints would not allow compliance with these regulations or equivalent facilitation without creating an unreasonable hardship. See Section 101.17.11, Item 5.
- 2. Entrance. Access to these facilities shall be provided at entrances and exits as required by Section 1133B.1.1.
- 3. **Functional activity.** Wheelchair access shall be provided to all areas where each type of functional activity occurs.
- 4. Seating. Each dining, banquet and bar area shall have one wheelchair seating space for each 20 seats, with at least one minimum wheelchair seating space per functional area. Such seating shall be designed and arranged to permit use by wheelchair occupants, and shall comply with Section 1122B, "Fixed or Built-in Seating, Tables, and Counters." Access to such seating spaces shall be provided with main aisles not less than 36 inches (914 mm) clear width. Accessible seating spaces shall be integrated with general seating to allow a reasonable selection of seating area and to avoid having one area specifically highlighted as the area for persons with disabilities. The ratio of accessible seating is based on the total number of seats provided.
- 5. Food service aisles. Food service aisles shall be a minimum of 36 inches (914 mm) of clear width with a preferred width of 42 inches (1067 mm) where passage of stopped wheelchairs by pedestrians is desired. Tray slides shall be mounted no higher than 34 inches (864 mm) above the floor. If self-service shelves are provided, a reasonable portion must be within the ranges shown in Figure 11B-16.
- 6. **Tableware areas.** Tableware, dishware, condiments, food and beverage display shelves, and dispensing devices shall comply with Section 1122B.4. See Figure 11B-17.
- 7. **Restrooms.** Restrooms and powder rooms shall conform to requirements in Section 1115B.
- 8. Food preparation areas. Access to food preparation areas shall comply with the provisions for entrance doors and doorways in Section 1004, and aisles in Sections 1004.3.2.1 and 1004.3.2.2.

#### 1104B.6 Religious Facilities.

1104B.6.1 General. Religious facilities shall be made accessible to persons with disabilities as provided in this section.

**EXCEPTION:** In existing buildings, when the enforcing agency determines that compliance with any regulation under this section would create an unreasonable hardship, an exception shall be granted when equivalent facilitation is provided.

- 1104B.6.2 Sanctuary. Sanctuary areas shall be made accessible to persons with disabilities.
- 1104B.6.2.1 Wheelchair seating spaces in these areas shall conform to the requirements in Section 1104B.3.1.
- 1104B.6.2.2 Wheelchair access shall be provided to raised platforms, choir rooms, choir lofts, performing areas and other similar areas.

**EXCEPTION:** In existing buildings, these regulations shall not apply to choir lofts when the enforcing agency determines that such compliance would create an unreasonable hardship.

1104B.6.3 Assembly areas. Assembly areas shall be made accessible to persons with disabilities. Enclosed and unenclosed

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platforms and stages in assembly areas shall conform to these requirements.

1104B.6.4 Classrooms and offices. Classrooms and offices shall have entry doors that conform to the requirements in Chapter 10.

1104B.6.5 Sanitary facilities. Sanitary facilities shall conform to the requirements in Section 1115B.

### SECTION 1105B — ACCESSIBILITY FOR GROUP B OCCUPANCIES

Group B Occupancies shall be accessible as provided in this chapter. See also the general requirements listed in Section 1114B.1.1.

EXCEPTIONS: 1. In existing buildings, when the enforcing agency determines that compliance with any regulation under this section would create an unreasonable hardship, an exception shall be granted when equivalent facilitation is provided.

- 2. In existing buildings, the provisions of this section shall not apply when legalor physical constraints will not allow compliance with these building standards or equivalent facilitation without creating an unreasonable hardship. See Section 101.17.11, Item 5.
- 3. For floors and levels in new and existing buildings, see Section 120B.
- 1105B.1 General. The provisions of this section apply to the specified types of facilities and identify specific requirements of accessibility and usability which shall be provided for each of the listed occupancy uses.
- 1105B.2 Group B Occupancies. Group B Occupancies used for assembly purposes, but having an occupant load of less than 50, shall conform to the requirements as specified in Sections 1105B, 1107B and 1110B.

**NOTE:** For floors and levels in dining, banquet and bar facilities, see Section 1120B.

- 1105B.3 Office Buildings and Personal and Public Service Facilities. Office buildings and personal and public service facilities shall conform to the provisions of this section.
- 1105B.3.1 Facilities covered. Facilities covered in this section are those that are used by the public as customers, clients, visitors or which are potentially places of employment and shall include, but not be limited to, the following requirements:
- 1. All types of general and specialized business professional offices, including those related to professional medicine or dentistry, insurance, real estate, attorneys, credit bureaus, consultants, counseling and accounting.
- 2. All types of sales establishments, including outlets for all general and special merchandise and equipment, including personal and household furnishings and supplies, foods, sporting equipment, office supplies, vehicles and related parts and supplies, building materials, and pet shops.
- 3. All personal and public service facilities, including banks, savings and loan companies, credit unions, newspaper and printing establishments, photographic studios, laundermats, cleaning and laundry outlets, veterinarian clinics and hospitals, automobile rental agencies, travel bureaus, public utility facilities, police stations and detention facilities, courtrooms and fire stations.
- 1105B.3.2 Business and professional offices. Areas to be made accessible include the following:
- 1. Client and visitor areas and office areas, together with related toilet rooms.
- 2. Conference rooms, counseling rooms or cubicles and similar areas.

- 3. Employee work areas shall have a minimum of 36 inches (914 mm) wide clear access, except as modified in other portions of these regulations. See Sections 1133B.6.1 and 1133B.6.2.
- 4. Professional medical and dental offices shall be made accessible and shall also comply with Section 1109B.

### 1105B.3.3 Personal and public service facilities. Areas to be made accessible include the following:

- 1. Client and visitor areas, office areas, and related toilet rooms shall be made accessible.
- 2. Employee work areas shall have 36 inches (914 mm) wide clear access, except as modified in other portions of these regulations. See Sections 1133B.6.1 and 1133B.6.2.
- 3. Automated teller machines used by a financial institution and its customers for the primary purposes of executing financial transactions. See Section 1117B.7.

### 1105B.3.4 Public utility facilities. Areas to be made accessible include the following:

- 1. Office areas, meeting rooms and similar areas together with related toilet rooms shall be made accessible.
- 2. Public tour areas, to the extent that such public tours are conducted through or about a facility, or where the public is permitted to walk in such areas, shall provide accessibility in those portions of the facility and grounds where this occurs.

**EXCEPTIONS:** 1. Facilities located in operational areas which would not have any reasonable availability to or usage by persons who use wheel chairs for mobility are not subject to the wheel chair accessibility requirements of these regulations.

- 2. When the enforcing agency determines that compliance with this subsection would create an unreasonable hardship, an exception to such provision shall be granted when equivalent facilitation is provided
- 3. Visitor overlook facilities, orientation areas and similar public-use areas, and any sanitary facilities that serve these facilities shall be made accessible.
- 4. Where public parking is provided, spaces shall be provided for persons with disabilities as specified in Sections 1129B and 1130B.

## 1105B.3.5 Police department, law enforcement, fire department facilities and courtrooms. Areas to be made accessible include the following:

- 1. Office areas, conference rooms, classrooms, dispatch rooms and similar areas, along with related sanitary facilities, shall be made accessible.
  - 2. Detention-area visitor room shall be made accessible.
- 3. At least one detention cell facility with supporting sanitary facilities shall be made accessible.
- 4. Courtroom areas, including the judge's chambers and bench, counsel tables, jury box, witness stand and public seating area shall be made accessible.

#### 1105B.3.6 Miscellaneous general standards.

- 1. Circulation aisles and pedestrian ways shall be sized according to functional requirements and in no case shall be less than 36 inches (914 mm) in clear width.
- 2. **Storage areas.** The doorway providing access to all such areas shall not be less than 32 inches (813 mm) in clear width. Storage areas shall be made accessible in the number and dimensions provided in Section 1125B.

#### SECTION 1106B — ACCESSIBILITY FOR GROUP E OCCUPANCIES

1106B.1 General. Group E Occupancies shall be accessible as provided in this chapter. See also the general requirements listed in Section 1114B.1.1.

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EXCEPTIONS: 1. In existing buildings, when the enforcing agency determines that compliance with any regulation under this section would create an unreasonable hardship, an exception shall be granted when equivalent facilitation is provided.

2. In existing buildings, where the enforcing agency determines that, because of physical constraints, compliance with these regulations or equivalent facilitation would create an unreasonable hardship, these regulations shall not apply. See Section 101.17.11, Item 5.

1106B.2 Laboratory Rooms. Laboratory rooms shall have at least one work station and at least 5 percent of all work stations accessible to and usable by persons with disabilities.

EXCEPTION: Where the enforcing agency determines that it would create an unreasonable hardship to require compliance with these regulations for special-use rooms such as laboratory preparation rooms, supply rooms, small research laboratories, and areas containing specialized equipment not readily usable by persons with particular disabilities, such facilities need not comply with these regulations, except that a clear width of 32 inches (813 mm) shall be maintained into such rooms.

1106B.3 Teaching Facility Cubicles, Study Carrels, etc. Teaching facility cubicles, study carrels, etc., shall have 5 percent, but always at least one cubicle or carrel in each group (language, dental, audiovisual, typing, drafting, darkrooms, etc.) made accessible to and usable by persons with disabilities in compliance with Section 1118B, "Space Allowance and Reach Ranges" and Section 1122B, "Fixed or Built-in Seating, Tables, and Counters."

#### 1106B.4 Library General Use Areas.

- 1. **General.** Library general use areas such as those housing card files, book stacks, periodicals, reading and reference areas, information desks, circulation counters, etc., shall be made accessible to persons with disabilities.
- 2. **Open book stacks.** Open book stacks (those available for customer use) may be of normal height, and shall have main aisles no less than 44 inches (1118 mm) in width and side, range and end aisles no less than 36 inches (914 mm) in width.

EXCEPTIONS: 1. In existing buildings, shelving in the amount of not more than 15 percent of the total amount of library shelving may be located on an inaccessible mezzanine area.

- 2. In existing buildings, multitiered, closed book stacks (those restricted to employee use) are exempt from these accessibility standards.
- 3. **Height of book shelves.** Unless an attendant is available to assist persons with disabilities, all book shelving shall be located not more than 54 inches (1372 mm) above the floor.
- 4. Card catalogs. Reach heights at card catalogs and magazine displays shall comply with Section 1118B, with a height of 48 inches (1219 mm) preferred irrespective of reach allowed.

#### SECTION 1107B — FACTORIES AND WAREHOUSES

Factories and warehouses shall conform to the provisions of this section, Section 1103B.1 and Section 1103B.1, Exception 3, for multistory buildings.

EXCEPTION: In existing buildings, when the enforcing agency determines that compliance with any regulation under this section would create an unreasonable hardship, an exception shall be granted when equivalent facilitation is provided.

#### 1107B.1 Factories.

- 1. Major or principal floor areas shall be made accessible.
- 2. Office areas shall be made accessible.
- 3. Sanitary facilities serving these areas shall be made accessible.

#### 1107B.2 Warehouses.

- 1. Miscellaneous warehousing areas which are located on the floor nearest grade and those areas on other floors that are otherwise provided with access by level entry, ramp or elevator shall be made accessible.
  - 2. Office areas shall be made accessible.
- 3. Sanitary facilities serving these areas shall be made accessible.

#### SECTION 1108B — ACCESSIBILITY FOR GROUP H OCCUPANCIES

1108B.1 General. Group H Occupancies shall be accessible as provided in this chapter. See also the general requirements listed in Section 1114B.1.1.

**EXCEPTIONS:** 1. In existing Group H Occupancies, when the enforcing agency determines that compliance with any regulation under this section would create an unreasonable hardship, an exception shall be granted when equivalent facilitation and protection are provided.

2. In existing Group H Occupancies, the provisions of this section shall not apply when legal or physical constraints prevent compliance with these building standards or the provisions of equivalent facilitation without creating an unreasonable hardship. See Section 101.17.11, Item 5.

1108B.2 Accessible Sanitation Facilities. Accessible sanitation facilities in all Group H Occupancies shall be provided as specified in this chapter.

1108B.3 Accessible Routes. Entrances, stairs, ramps, doors, turnstiles, corridors, walks and sidewalks and hazards shall provide accessibility as specified in Section 1133B.

1108B.4 Accessible Floors and Levels. Accessible floors and levels shall comply with the requirements specified in this chapter.

1108B.5 Employee Work Areas. Employee work areas shall be accessible by means of a 36 inch-minimum (914 mm) aisle width and a 32 inch-minimum (813 mm) clear opening door width, as specified in Sections 1133B.6.1 and 1133B.6.2.

1108B.6 Accessible facilities covered in this chapter are those that are used by the public as customers, clients, visitors or which are potential places of employment.

### SECTION 1109B — ACCESSIBILITY FOR GROUP I OCCUPANCIES

1109B.1 General. All Group I Occupancies shall be accessible as provided in this chapter. See also the general requirements listed in Section 1114B.1.1.

**EXCEPTION:** In existing buildings, when the enforcing agency determines that compliance with any regulation under this section would create an unreasonable hardship, an exception shall be granted when equivalent facilitation is provided.

1109B.2 Entrance. At least one accessible entrance shall be protected from the weather by canopy or roof overhang. Such entrances shall incorporate a passenger loading zone. Passenger loading zones shall provide an access aisle at least 60 inches (1524 mm) wide and 20 feet (6096 mm) long adjacent and parallel to the vehicle pull-up space. If there are curbs between the access aisle and the vehicle pull-up space, then a curb ramp complying with Chapter 11B shall be provided. Vehicle standing spaces and access aisles shall be level with surface slopes not exceeding 1 unit vertical in 50 units horizontal (2% slope) in all directions. Minimum vertical clearance of 114 inches (2896 mm) at accessible passenger loading zones and along vehicle access routes to such areas from site entrances shall be provided.

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with Table 11B-3, and shall meet the requirements of Section 1133A.

- 1111B.4.5 Visual alarms, notification devices and telephones for persons with hearing impairments. In addition to those accessible sleeping rooms and suites required by Section 1111B.4.2 to comply with this section, additional sleeping rooms and suites shall be provided with the following features in conformance with Table 11B-4 and as follows:
- 1111B.4.5.1 Visual alarms. Auxiliary visual alarms shall be provided and shall comply with Section 1114B.2.4.
- 1111B.4.5.2 Visual notification devices. Visual notification devices shall also be provided in units, sleeping rooms and suites to alert room occupants of incoming telephone calls and a door knock or bell. Notification devices shall not be connected to auxiliary visual alarm signal appliances.
- 1111B.4.5.3 Telephones. Permanently installed telephones shall have volume controls complying with Section 1117B.2.8; an accessible electrical outlet within 48 inches (1219 mm) of a telephone connection shall be provided to facilitate the use of a text telephone.
- 1111B.4.6 Bathrooms in hotels, motels, inns, dormitories, resorts, homeless shelters, halfway houses, transient group homes and similar places of transient lodging. Required accessible bathrooms for places of transient lodging shall comply with the following provisions:

**EXCEPTION:** Hotel and motel bathrooms beyond those specified in Section 1111B. 4 need not comply with the provisions of this section or other accessibility provision of the California Building, Electrical, and Plumbing Codes if they provide the following features:

- 1. All bathroom fixtures are in a location that allows a person using a wheelchair measuring 30 inches by 48 inches (762 mm by 1219 mm) to touch the wheelchair to any lavatory, urinal, water closet, tub, sauna, shower stall and any other similar sanitary installation, if provided.
- 2. All bathroom entrance doors have a clear opening width of 32 inches (813 mm) and shall be either sliding doors or shall be hung to swing in the direction of egress from the bathroom.
- 1. **Doors.** Doors to accessible bathrooms shall comply with Section 1133B.2. Doors shall not swing into the floor space required for any fixture.
- 2. Clear floor space. All fixtures and controls shall be on an accessible route. There must be within the bathroom a clear floor space measuring 30 inches by 60 inches (762 mm by 1524 mm). The clear floor spaces at fixtures and controls, the accessible route, and the turning space may overlap.
- 3. Water closets. If a toilet stall is provided, it shall comply with Section 1115B.7.1 or 1115B.7.2, its water closet shall comply with Section 1115B of this code.
- 4. Lavatory and mirrors. If a lavatory and/or mirror is provided, it shall comply with Section 1115B.9 of this code.
- 5. Controls and dispensers. If controls, dispensers, receptacles, or other types of equipment are provided, then at least one of each shall be on an accessible route and shall comply with Section 1117B.6, "Controls and Operating Mechanisms."
- 6. Bathing and shower facilities. If tubs or showers are provided, then at least one accessible tub that complies with Section 1115B.6.1 or at least one accessible shower that complies with Section 1115B.6.2 of this code shall be provided.
- 7. **Toilet facilities.** Toilet facilities shall comply with Section 1111B.4.6, as modified for hotel, motel and dormitory accommodations.

1111B.4.7 Dormitory rooms. Dormitory rooms beyond those specified herein shall comply with the adaptability requirements of Section 1111B.5.

### 1111B.5 Buildings and Complexes Containing Publicly Funded Dwelling Units.

1111B.5.1 General. Buildings and complexes containing publicly funded dwelling units shall be accessible as required by Chapter 11A, Housing Accessibility, except that scoping requirements for covered multifamily dwellings include one or more publicly funded dwelling units, and is required to comply with Division IV—Accessibility for Existing Buildings, beginning with Section 1134B.

TABLE 11B-3—ADDITIONAL ACCESSIBILITY REQUIRED IN GUEST ROOMS OR SUITES\*

TOTAL NUMBER OF ROOMS	FULLY ACCESSIBLE ROOMS	PLUS ADDITIONAL ACCESSIBLE ROOMS WITH ROLL-IN SHOWERS	
1 to 25	0	1	
26 to 50	1	1	
51 to 75	3	1	
76 to 100	4	1	
101 to 150	5	2	
151 to 200	6	2	
201 to 300	7	3	
301 to 400	8	4	
401 to 500	9	4	
501 to 1,000	2% of total	4 l 1 fl-	
1,001 and over	20 plus 1 for each 100 over 1,000	4 plus 1 for each additional 100 over 400	

<sup>\*</sup>Note: Provisions of this chapter are additional modifications to general requirements listed in Section 1114B.1.1.

### TABLE 11B-4—ADDITIONAL ACCESSIBILITY REQUIRED FOR HEARING IMPAIRED IN GUEST ROOMS\*

TOTAL NUMBER OF ROOMS	NUMBER OF ROOMS EQUIPPED FOR HEARING IMPAIRED
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1,000	2% of total
1,001 and over	20 plus 1 for each 100 over 1,000

<sup>\*</sup>Note: Provisions of this chapter are additional modifications to general requirements listed in Section 1114B.1.1.

### SECTION 1112B — ACCESSIBILITY FOR GROUP S OCCUPANCIES

(Reserved for future use.)

#### SECTION 1113B — ACCESSIBILITY FOR GROUP U OCCUPANCIES

(Reserved for future use.)

#### SECTION 1114B — FACILITY ACCESSIBILITY

When buildings are required to be accessible, buildings and facilities shall be accessible as provided in this section and in those sections listed in Section 1114B.1.1.

#### 1114B.1 Design and Construction.

1114B.1.1 General. When accessibility is required by this chapter, it shall be designed and constructed to meet the minimum requirements of the following sections:

Chapter 11B. Accessibility; Division I, New Buildings; Division II, Site Accessibility; Division III, Accessibility for Entrances, Exits and Paths of Travel; and Division IV, Accessibility for Existing Buildings

Entrances —[For HCD 1/AC] Section 1120A.1; [for DSA/AC] Section 1133B.1.1

Doors — [For HCD 1/AC] Section 1114A.4.4, 1117A.2, 1122A.3.4, 1126A, 1132A; [for DSA/AC] Section 1133B.2

Corridors — [For HCD 1/AC] Section 1120A; [for DSA/AC] Section 1133B.3

Stairways — [For HCD 1/AC] Section 1115A.6, 1123A; [for DSA/AC] Section 1133B.4

Ramps —[For HCD 1/AC] Section 1112A, 1114A, 1122A; [for DSA/AC] Section 1133B.5

Aisles — [For DSA/AC] Section 1133B.6

Walks and Sidewalks —[For HCD 1/AC] Section 1113A; [for DSA/AC] Section 1133B.7

Hazards —[For HCD 1/AC] Section 1116A, 1125A; [for DSA/AC] Section 1133B.8

Elevators — [For HCD 1/AC] Section 3003; [for DSA/AC] Section 1116B.

Special Access (Wheelchair) Lifts —[For HCD 1/AC] Section 1124A; [for DSA/AC] Section 1116B.2

Alarms — Chapter 35.

See also Part 3, California Electrical Code.

1114B.1.2 Accessible route of travel. When a building, or portion of a building, is required to be accessible or adaptable, an accessible route of travel shall be provided to all portions of the building, to accessible building entrances and between the building and the public way. Except within an individual dwelling unit, an accessible route of travel shall not pass though kitchens, storage rooms, restrooms, closets or other spaces used for similar purposes. At least one accessible route within the boundary of the site shall be provided from public transportation stops, accessible parking and accessible passenger loading zones, and public streets or sidewalks, to the accessible building entrance they serve. The accessible route shall, to the maximum extent feasible, coincide with the route for the general public. At least one accessible route shall connect accessible buildings, facilities, elements and spaces that are on the same site. At least one accessible route shall connect accessible building or facility entrances with all accessible spaces and elements and with all accessible dwelling units within the building or facility. An accessible route shall connect at least one accessible entrance of each accessible dwelling unit with those exterior and interior spaces and facilities that serve the accessible dwelling unit.

Where more than one route of travel is provided, all routes shall be accessible.

**EXCEPTION:** Where an elevator is provided for vertical access, only one elevator is required. Where more than one elevator is provided, all elevators shall be accessible.

 $See Section \, 1114B.1.1 \, for a \, list of code \, sections applicable \, to \, accessible \, route \, of \, travel.$ 

1114B.1.3 Primary entry access. All entrances and all exterior ground-level exits shall be accessible in compliance with Section 1133B.1.1.

1114B.1.4 Signs. See Section 1117B.5.

1114B.1.5 Adaptable dwelling units. See Section 1111B.

1114B.2 Egress and Areas for Evacuation Assistance.

1114B.2.1 [For SFM] General. In buildings or portions of buildings required to be accessible, accessible means of egress shall be provided in the same number as required for exits by Chapter 10. When an exit required by Chapter 10 is not accessible, an area for evacuation assistance shall be provided.

Areas for evacuation assistance shall comply with the requirements of this code and shall adjoin an accessible route of travel complying with this code.

**EXCEPTIONS:** 1. Areas of evacuation assistance are not required in buildings or facilities having a supervised automatic sprinkler system

2. In alterations of existing buildings, areas of evacuation assistance are not required.

#### 1114B.2.2 [For SFM] Areas for evacuation assistance.

1114B.2.2.1 [For SFM] Location and construction. An area for evacuation assistance shall be one of the following:

- 1. **[For SFM]** A portion of a stairway landing within a smoke-proof enclosure, complying with Section 1005.3.3.
- 2. **[For SFM]** A portion of an exterior exit balcony located immediately adjacent to an exit stairway when the exterior exit balcony complies with Section 1006.3. Openings to the exterior of the building located within 20 feet (6096 mm) of the area for evacuation assistance shall be protected with fire assemblies having a three-fourths-hour fire-protection rating.
- 3. [For SFM] A portion of a one-hour fire-resistive corridor complying with Section 1004.3.4 located immediately adjacent to an exit enclosure.
- 4. **[For SFM]** A vestibule located immediately adjacent to an exit enclosure and constructed to the same fire-resistive standards as required by Section 1004.3.4.
- 5. **[For SFM]** A portion of a stairway landing within an exit enclosure which is vented to the exterior and is separated from the interior of the building by not less than one-hour fire-resistive door assemblies.
- 6. [For SFM] When approved by the building official, an area or room which is separated from other portions of the building by a smoke barrier. Smoke barriers shall have a fire-resistive rating of not less than one hour and shall completely enclose the area or room. Doors in the smoke barrier shall be tightfitting smoke- and draft-control assemblies having a fire-protection rating of not less than 20 minutes and shall be self-closing or automatic closing. The area or room shall be provided with an exit directly to an exit enclosure. When the room or area exits into an exit enclosure which is required to be of more than one-hour fire-resistive construction, the room or area shall have the same fire-resistive construction, including the same opening protection, as required for the adjacent exit enclosure.
- 7. [For SFM] An elevator lobby complying with Section 1114B.2.3.

1114B.2.2.2 [For SFM] Size. Each area for evacuation assistance shall provide at least two accessible areas that are not less than 30 inches by 48 inches (762 mm by 1219 mm). The area for

evacuation assistance shall not encroach on any required exit width. The total number of such 30-inch by 48-inch (762 mm by 1219 mm) areas per story shall not be less than one for every 200 persons of calculated occupant load served by the area for evacuation assistance.

**EXCEPTION:** The building official may reduce the minimum number of 30-inch by 48-inch (762 mm by 1219 mm) areas to one for each area for evacuation assistance on floors where the occupant load is less than 200.

1114B.2.2.3 [For SFM] Adjacent stairway width. Each stairway adjacent to an area for evacuation assistance shall have a minimum clear width of 48 inches (1219 mm) between handrails.

#### 1114B.2.2.4 [For SFM] Two-way communication.

1114B.2.2.4.1 [For SFM] A telephone with controlled access to a public telephone system or another method of two-way communication shall be provided between each area of refuge and the primary entry. The fire department may approve a location other than the primary entry.

1114B.2.2.4.2 [For DSA/AC] A method of two-way communication with both visible and audible communication shall be provided between each area of evacuation assistance and the primary entry. A button in the area of rescue assistance shall activate both a light in the area of rescue assistance indicating that rescue has been requested and a light at the primary entry indicating that rescue is being requested. A button at the primary entry shall activate both a light at the primary entry and a light in the area of rescue assistance indicating that the request has been received.

A telephone with controlled access to a public telephone system or another method of two-way communication shall be provided between each area of refuge and the primary entry. The fire department may approve a location other than the primary entry.

1114B.2.2.5 [For SFM] Identification. Each area for evacuation assistance shall be identified by a sign which states AREA FOR EVACUATION ASSISTANCE and the international symbol of accessibility. The sign shall be illuminated when exit sign illumination is required. In each area for evacuation assistance, instructions on the use of the area under emergency conditions shall be posted adjoining the two-way communication system.

1114B.2.3 [For SFM] Area for evacuation assistance, highrise alternative. Within a building of any height or occupancy constructed in accordance with the requirements of Sections 403.1 through 403.10, an area for evacuation assistance may be located in the elevator lobby when:

- 1. The area for evacuation assistance complies with the requirements for size, two-way communication and identification as specified in Section 1114B.2.2; and
- 2. Elevator shafts and adjacent lobbies are pressurized as required for smoke-proof enclosures in Section 1005.3.3. Such pressurization system shall be activated by smoke detectors on each floor located in a manner approved by the building official. Pressurization equipment and its ductwork within the building shall be separated from other portions of the building by a minimum two-hour fire-resistive construction.

1114B.2.4 [For SFM] Alarms/emergency warning systems/accessibility. If emergency warning systems are required, they shall activate a means of warning the hearing impaired. Emergency warning systems as part of the fire-alarm system shall be designed and installed in accordance with NFPA 72 as amended in Chapter 35.

#### SECTION 1115B — BATHING AND TOILET FACILITIES

1115B.1 General. Sanitary facilities that serve buildings, facilities or portions of buildings or facilities that are required by these standards to be accessible to persons with disabilities, shall conform to the following requirements, except as specifically exempted in other portions of this code.

**NOTE:** See Section 1111B.4.6 and Chapter 11A for bathrooms in residential occupancies.

EXCEPTION: In existing buildings or facilities, when the enforcing agency determines that compliance with any building standard under this section would create an unreasonable hardship, an exception to such standard shall be granted when equivalent facilitation is provided. When equivalent facilitation is used, the following criteria shall apply:

- 1. All sanitary facilities are not required to comply with these building standards when the enforcing agency determines that sanitary facilities are accessible to and usable by persons with disabilities within a reasonable distance of accessible areas.
- 2. Equivalent facilitation would require doors to have a clear, unobstructed opening of at least 30 inches (762 mm).

1115B.2 Toilet Facilities. Where separate facilities are provided for nondisabled persons of each sex, separate facilities shall be provided for persons with disabilities of each sex also. Where unisex facilities are provided for persons without disabilities, at least one unisex facility shall be provided for persons with disabilities within close proximity to the nonaccessible facility. (See Figure 11B-1A.)

#### 1115B.2.1 Accessible water closets.

1. The height of accessible water closets shall be a minimum of 17 inches (432 mm) and a maximum of 19 inches (483 mm) measured to the top of a maximum 2-inch high (51 mm) toilet seat.

EXCEPTION: A 3-inch (76 mm) high seat shall be permitted only in alterations where the existing fixture is less than 15 inches (381 mm) high

2. Controls shall be operable with one hand and shall not require tight grasping, pinching or twisting. Controls for the flush valves shall be mounted on the wide side of toilet areas, no more than 44 inches (1118 mm) above the floor. The force required to activate controls shall be no greater than 5-pound-force (lbf) (22.2 N).

[ForDSA/AC] NOTES: 1. See the California Building Code, Chapter 11A, Section 1134A.7 for additional requirements for water closets in publicly funded housing and all nonresidential occupancies.

2. Automatic "spring to lifted position" seats are not allowed.

#### 1115B.2.1.1 Accessible urinals.

1115B.2.1.1.1 Urinals shall be floor mounted or wall hung. Where one or more wall hung urinals are provided, at least one with a rim projecting a minimum of 14 inches (356 mm) from the wall and a maximum of 17 inches (432 mm) from the wall and a maximum of 17 inches (432 mm) above the floor shall be provided.

1115B.2.1.1.2 Flush controls shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist and shall be mounted no more than 44 inches (1118 mm) above the floor. The force required to activate controls shall be no greater than 5 lbf (22.2 N). Electronic automatic flushing controls are acceptable and preferable.

#### 1115B.2.1.2 Accessible lavatories.

1115B.2.1.2.1 Faucet controls and operating mechanisms shall be operable with one hand in accordance with Chapter 11B of the California Building Code and shall not require tight grasping, pinching or twisting of the wrist. The force required to activate controls shall be no greater than 5 lbf (22.2 N). Lever-operated,

push-type and electronically controlled mechanisms (preferable) are examples of acceptable designs. Self-closing valves are allowed if the faucet remains open for at least 10 seconds.

Lavatories, when located adjacent to a side wall or partition, shall be a minimum of 18 inches (457 mm) to the centerline of the fixture. All lavatories that are designated to be accessible shall be mounted with the rim or counter edge no higher than 34 inches (864 mm) above the finished floor and with vertical clearance measured from the bottom of the apron or the outside bottom edge of the lavatory of 29 inches (737 mm) reducing to 27 inches (686 mm) at a point located 8 inches (203 mm) back from the front edge.

Knee clearance below the lavatory shall extend a minimum of 30 inches (762 mm) in width by 17 inches (432 mm) in depth. See Figure 11B-1D—Knee Clearance.

1115B.2.1.2.2 Hot water and drainpipes accessible under lavatories shall be insulated or otherwise covered. There shall be no sharp or abrasive surfaces under lavatories.

#### 1115B.2.1.3 Accessible showers.

1115B.2.1.3.1 Water controls of a single-lever design shall be located on a sidewall adjacent to the seat and operable with a maximum force of 5-lbf (22.2 N). The controls shall be located 40 inches (1016 mm) [plus or minus 1 inch (25 mm) tolerance] above the shower floor.

1115B.2.1.3.2 A flexible handheld shower unit with a hose at least 60 inches (1524 mm) long shall be provided with head mounting height of 48 inches (1219 mm) [plus or minus 1-inch (25 mm) tolerance] maximum above the shower floor.

1115B.2.1.3.3 Where shower facilities for persons with disabilities are provided in areas subject to excessive vandalism, in lieu of providing the fixed flexible hose and handheld showerhead required above two wall-mounted showerheads shall be installed. Each showerhead shall be controlled so that it can be operated independently of the other and shall have swivel angle adjustment, both vertically and horizontally. One showerhead shall be located at a height of 40 inches (1016 mm) [plus or minus 1 inch (25 mm) tolerance] above the floor.

1115B.2.1.3.4 Where, within the same functional area, two or more showers are provided for people with disabilities, there shall be at least one shower constructed opposite hand from the other or others (i.e., one with left-hand controls versus right-hand controls.

1115B.2.1.4 Accessible bathtubs. Bathtubs shall be provided with a shower spray unit having a hose at least 60 inches (1524 mm) long that can be used as a shower. Bathtub enclosures, if provided, shall not obstruct controls or transfer from wheelchair onto bathtub seats or into tubs. Enclosures on bathtubs shall not have tracks mounted on their rims.

#### 1115B.2.1.5 Accessible drinking fountains.

1115B.2.1.5.1 The drinking fountain shall be a minimum of 18 inches (457 mm) in depth and there shall be clear and unobstructed knee space under the drinking fountain not less than 27 inches (686 mm) in height and 8 inches (203 mm) in depth, the depth measurements being taken from the front edge of the fountain. Additionally, there shall be toe clearance of 9 inches (229 mm) in height above the floor and 17 inches (432 mm) in height above the floor and 17 inches (432 mm) in depth from the front edge of the fountain. A side approach drinking fountain is not acceptable.

1115B.2.1.5.2 If provided in covered multifamily buildings, drinking fountains and water coolers shall be on an accessible

route. Wall-mounted and post-mounted cantilevered drinking fountains and water coolers shall have a clear knee space a minimum of 30 inches (762 mm) in width and shall also have a minimum clear floor space 30 inches by 48 inches (762 mm by 1219 mm) to allow a person in a wheelchair to approach the unit facing forward.

1115B.2.1.5.3 The bubbler shall be activated by a manually operated system not requiring a force greater than 5 lbf (22.2 N) that is located within 6 inches (152 mm) of the front edge of the fountain or an electronically controlled device (preferably). The bubbler outlet orifice shall be located within 6 inches (152 mm) of the front edge of the drinking fountain and within 36 inches (914 mm) of the floor. The water stream from the bubbler shall be substantially parallel to the front edge of the drinking fountain.

1115B.2.1.5.4 The spout shall provide a flow of water at least 4 inches (102 mm) high so as to allow the insertion of a cup or glass under the flow of water. The force required to activate controls shall be no greater than 5 lbf (22.2 N).

#### 1115B.2.1.6 Accessible sinks.

1115B.2.1.6.1 Accessible kitchen sinks. Faucet controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist. The force required to activate controls shall be not greater than 5 lbf (22.2 N). Lever-operated, push-type and electronically controlled mechanisms are examples of acceptable designs. Self-closing valves are allowed if the faucet remains open for at least 10 seconds.

1115B.2.1.6.2 Noncommercial kitchen and counter bar sinks. Kitchen and counter bar sinks located in common use areas shall have faucet controls and operating mechanisms operable with one hand in accordance with Chapter 11B of the California Building Code and shall not require grasping, pinching or twisting of the wrist. The force required to activate controls shall be no greater than 5 lbf (22.2 N). Lever-operated, push-type and electronically controlled mechanisms are examples of acceptable designs.

1115B.3 Where Used by Children. Where facilities are to be used solely by small children, the specific heights may be adjusted to meet their accessibility needs. See Table 1115B-1 for suggested mounting heights.

1115B.4 Passageways. Passageways leading to sanitary facilities shall have a clear access. All doorways leading to such sanitary facilities shall have:

1115B.4.1 Clear opening. A clear unobstructed opening width of 32 inches (813 mm).

1115B.4.2 Level area. A level and clear area for a minimum depth of 60 inches (1524 mm) in the direction of the door swing as measured at right angles to the plane of the door in its closed position, and 44 inches (1118 mm) where the door swings away from the level and clear area. The width of the level area on the side to which the door swings shall extend 24 inches (610 mm) past the strike edge of the door for exterior doors and 18 inches (457 mm) past the strike edge for interior doors.

1115B.5 Identification Symbols. Doorways leading to men's sanitary facilities shall be identified by an equilateral triangle  $^{1}/_{4}$  inch thick (6.4 mm) with edges 12 inches (305 mm) long and a vertex pointing upward. Women's sanitary facilities shall be identified by a circle,  $^{1}/_{4}$  inch thick (6.4 mm) and 12 inches (305 mm) in diameter. Unisex sanitary facilities shall be identified by a circle  $^{1}/_{4}$  inch thick (6.4 mm), 12 inches (305 mm) in diameter with a  $^{1}/_{4}$  inch thick (6.4 mm) triangle superimposed on the circle and within the 12 inch (305 mm) diameter. These geometric symbols shall be centered on the door at a height of 60 inches (1524 mm)

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and their color and contrast shall be distinctly different from the color and contrast of the door.

**NOTE:**Seealso Section 1117B.5.1, Item 1 for additional signage requirements applicable to sanitary facilities.

- 1115B.6 Bathing Facilities. Where facilities for bathing are provided for the public, clients or employees, including showers, bathtubs or lockers, at least one such facility, and not less than 1 percent of all facilities, shall conform to the following standards unless specifically exempted by other portions of these regulations.
- 1115B.6.1 Bathtubs. Bathtubs required to be accessible shall comply with this section.
- 1. Floor space. Clear floor space at bathtubs shall be as shown in Figure 11B-8.
- 2. **Seat.** An in-tub seat or a seat at the head end of the tub shall be provided as shown in Figures 11B-8 and 11B-9B. The structural strength of seats and their attachments shall comply with Section 1115B.8.3. Seats shall be mounted securely and shall not slip during use.
- 3. **Grab bars.** Grab bars complying with Sections 1115B.8.2, 1115B.8.3 and 1115B.8.4 shall be provided as shown in Figures 11B-9A and 11B-9B.
- 4. Controls. Faucets and other controls shall be located as shown in Figure 11B-9B. They shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist. The force required to activate controls shall be no greater than 5 pounds (22.2 N).
- 5. **Shower unit.** A shower spray unit with a hose at least 60 inches (1524 mm) long that can be used both as a fixed shower head and as a hand-held shower shall be provided.
- 6. **Bathtub enclosures.** If provided, enclosures for bathtubs shall not obstruct controls or transfer from wheelchairs onto bathtub seats or into tubs. Enclosures on bathtubs shall not have tracks mounted on their rims.
- 1115B.6.2 Showers. Showers shall conform to the following requirements.
- 1115B.6.2.1 Size. Showers shall be 60 inches (1524 mm) minimum in width between wall surfaces and 30 inches (762 mm) minimum in depth with a full opening width on the long side, or 42 inches (1067 mm) in width between wall surfaces and 48 inches (1219 mm) minimum in depth with an entrance opening of 42 inches (1067 mm). As an alternative, showers 60 inches (1524 mm) minimum in width may be 36 inches (914 mm) minimum in depth as long as the entrance opening width is a minimum 36 inches (914 mm).
- 1115B.6.2.2 Thresholds. When a threshold or recessed drop is permitted, it shall be a maximum of  $^{1}/_{2}$  inch (13 mm) in height and shall be beveled or sloped at an angle not exceeding 45 degrees (100 percent gradient) from the horizontal.
- 1115B.6.2.3 Where, within the same functional area, two or more accessible showers are provided, there shall be at least one shower constructed opposite hand from the other or others (i.e., one left-hand controls versus right-hand controls).
- 1115B.6.2.4 Accessories. Shower accessories shall include:
- 1115B.6.2.4.1 Water controls. Water controls of a single-lever design shall be located on the side wall of the compartment adjacent to the seat and operable with a maximum force of 5 lb (22.2 N) mounted at 40 inches (1016 mm) [plus or minus 1 inch (25 mm) tolerance] above the shower floor, and the centerline of the con-

trols shall be within a reach range of no less than 18 inches (457 mm) and no more than 24 inches (610 mm) from the rear edge of the seat.

- 1115B.6.2.4.2 Hand-held sprayer unit. A flexible handheld sprayer unit with a hose at least 60 inches (1524 mm) long shall be provided within reach range of the seat at a distance not to exceed 27 inches (686 mm) horizontally measured from the rear seat edge to the centerline of the mounting bracket. This unit shall be mounted at a maximum height of 48 inches (1219 mm) [plus or minus 1 inch (25 mm) tolerance] above the shower floor.
- 1115B.6.2.4.3 Sprayer unit alternative. Except within guest rooms and suites in hotels, motels and similar transient lodging establishments where accessible shower facilities are provided in areas subject to excessive vandalism, in lieu of providing the fixed flexible hose, two wall-mounted shower heads shall be installed. Each shower head shall be installed so that it can be operated independently of the other and shall have swivel angle adjustments, both vertically and horizontally. One shower head shall be located at a height of 48 inches (1219 mm) [plus or minus 1 inch (25 mm) tolerance] above the floor.
- 1115B.6.2.4.4 Floor slope. The maximum slope of the floor shall be 2 percent in any direction. Where drains are provided, grate openings shall be a maximum of  $^{1}/_{4}$  inch (6.4 mm) and located flush with the floor surface.
- 1115B.6.2.4.5 Shower fixtures. Shower accessories shall include:
- 1. A folding seat located within 27 inches (686 mm) of the controls mounted 18 inches (457 mm) above the floor, and with a minimum space of 1 inch (25 mm) and maximum space of  $1^{1}/_{2}$  inches (38 mm) allowed between the edge of the seat and any wall. When folded, the seat shall not extend more than 6 inches (152 mm) from the mounting wall. See Figures 11B-2A, 11B-2B, 11B-2C and 11B-2D.
- 2. Grab bars located on walls adjacent to and opposite the seat. Grab bars also comply with the diameter, loading and projection requirements of Sections 1115B.8.2, 1115B.8.3 and 1115B.8.4. Grab bars shall be mounted between a minimum of 33 inches (838 mm) and a maximum of 36 inches (914 mm) above the shower floor with an L-shaped grab bar mounted on walls opposite and adjacent to the front edge of the seat, but not extended to include that portion of wall over the seat. See Figure 11B-2A or 11B-2B.
- 1115B.6.2.4.6 Soap dish. When a soap dish is provided, it shall be located on the control wall at a maximum height of 40 inches (1016 mm) above the shower floor, and within reach limits from the seat.
- 1115B.6.2.5 Enclosures. Enclosures, when provided for shower stalls, shall not obstruct transfer from wheelchairs onto shower seats.
  - NOTE: See Figures 11B-2A, 11B-2B, 11B-2C and 11B-2D.
- 1115B.6.3 Open showers. Where no separate shower compartments are provided, the shower for persons with disabilities shall be located in a corner with L-shaped grab bars extending along two adjacent walls with a folding seat adjacent to the shower controls. See Figures 11B-2A, 11B-2B, 11B-2C and 11B-2D.
- 1115B.6.4 Lockers. Where lockers are provided for the public, clients, employees, members or participants, at least one locker and not less than 1 percent of all lockers shall be made accessible to persons with disabilities. A path of travel not less than 36 inches (914 mm) in clear width shall be provided to these lockers.
- 1115B.7 Toilet Facilities.
- 1115B.7.1 Multiple-accommodation toilet facilities. Multiple-accommodation toilet facilities shall have the following:

NOTE: See definition in Chapter 2.

- 1. Wheelchair clearance. A clear space measured from the floor to a height of 27 inches (686 mm) above the floor, within the sanitary facility room, of sufficient size to inscribe a circle with a diameter not less than 60 inches (1524 mm), or a clear space 56 inches by 63 inches (1422 mm by 1600 mm) in size. Other than the door to the accessible water closet compartment, a door, in any position, may encroach into this space by not more than 12 inches (305 mm).
- 2. Clear space at fixtures. Doors shall not swing into the floor space required for any fixture.
- 3. Accessible water closet compartment. A water closet fixture located in a compartment shall provide a minimum 28 inchwide (711 mm) clear space from a fixture or a minimum 32 inch-wide (813 mm) clear space from a wall at one side of the water closet. The other side of the water closet shall provide 18 inches (457 mm) from the centerline of the water closet to the wall. The stall shall be a minimum of 60-inches (1524 mm) wide. A minimum 48-inch-long (1219 mm) clear space shall be provided in front of the water closet if the compartment has an end-opening door (facing the water closet). A minimum 60 inch-long (1524 mm) clear space shall be provided in a compartment with the door located at the side. Grab bars shall not project more than 3 inches (76 mm) into the clear spaces as specified above.
- 4. Compartment doors. Water closet compartment shall be equipped with a door that has an automatic-closing device, and shall have a clear, unobstructed opening width of 32 inches (813 mm) when located at the end and 34 inches (864 mm) when located at the side with the door positioned at an angle of 90 degrees from its closed position. When standard compartment doors are used, with a minimum 9-inch (229 mm) clearance for footrests underneath and a self-closing device, clearance at the strike edge as specified in Section 1133B.2.4.3 is not required.

The inside and outside of the compartment door shall be equipped with a loop or U-shaped handle immediately below the latch. The latch shall be flip-over style, sliding, or other hardware not requiring the user to grasp or twist. Except for door-opening widths and door swings, a clear, unobstructed access of not less than 44 inches (1118 mm) shall be provided to water closet compartments designed for use by persons with disabilities and the space immediately in front of a water closet compartment shall not be less than 48 inches (1219 mm) as measured at right angles to compartment door in its closed position.

- 5. Large toilet rooms. Where six or more stalls are provided within a multiple-accommodation toilet room, at least one stall shall comply with Items 2 and 3, and at least one additional stall shall be 36 inches (914 mm) wide with an outward swinging self-closing door and parallel grab bars complying with Sections 1115B.8.2, 1115B.8.3 and 1115B.8.4.
- 1115B.7.2 Single-accommodation toilet facilities. There shall be sufficient space in the toilet room for a wheelchair measuring 30 inches (762 mm) wide by 48 inches (1219 mm) long to enter the room and permit the door to close. There shall be in the room a clear floor space of at least 60 inches (1524 mm) in diameter, or a T-shaped space complying with Figure 11B-12 (a) and (b). No door shall encroach into this space for more than 12 inches (305 mm) except for the panel door to any water closet compartment if there is one. (See Figure 11B-1A). The water closet shall be located in a space which provides a minimum 28-inch-wide (711 mm) clear space from a fixture or a minimum 32-inch-wide (813 mm) clear space from a wall at one side. The other side shall provide 18 inches (457 mm) from the centerline of the water closet to the wall. A minimum 48 inches (1219 mm) of clear space shall be provided in front of the water closet. All doors, fixtures and con-

trols shall be on an accessible route. The minimum clear width of an accessible route shall be 36 inches (914 mm) except at doors (see Section 1133B.2). If a person in a wheelchair must make a turn around an obstruction, the minimum clear width of the accessible route shall be as shown in Figure 11B-5E. (See also Figure 11B-1A.)

**NOTE:** For bathrooms serving residential occupancies, see Section 1111B.4.6 and Chapter 11A.

EXCEPTION: In an existing building, a single-accommodation to ilet facility may have the water closet fixture located in an area which provides a clear space of not less than 36 inches (914 mm) wide by 48 inches (1219 mm) long in front of the water closet.

#### 1115B.8 Grab Bars.

1115B.8.1 Location. Grab bars located on each side, or one side and the back of the accessible toilet stall or compartment, shall be securely attached 33 inches (838 mm) above and parallel to the floor, except that where a tank-type toilet is used which obstructs placement at 33 inches (838 mm), the grab bar may be as high as 36 inches (914 mm). Grab bars shall be at least 42 inches (1067 mm) long with the front end positioned 24 inches (610 mm) in front of the water closet stool. Grab bars at the back shall not be less than 36 inches (914 mm) long. See Figures 11B-1A, 11B-1B and 11B-1C.

1115B.8.2 Diameter or width. The diameter or width of the gripping surfaces of a grab bar shall be  $1^{1}/4$  inches to  $1^{1}/2$  inches (32 mm to 38 mm) or the shape shall provide an equivalent gripping surface. If grab bars are mounted adjacent to a wall, the space between the wall and the grab bars shall be  $1^{1}/2$  inches (38 mm). See Figure 11B-1C.

1115B.8.3 Structural strength. The structural strength of grab bars, tub and shower seats, fasteners, and mounting devices shall meet the following specifications:

- 1. Bending stress in a grab bar or seat induced by the maximum bending moment from the application of a 250-pound (1112 N) point load shall be less than the allowable stress for the material of the grab bar or seat.
- 2. Shear stress induced in a grab bar or seat by the application of a 250-pound (1112 N) point load shall be less than the allowable shear stress for the material of the grab bar or seat, and its mounting bracket or other support is considered to be fully restrained, then direct and torsional shear stresses shall not exceed the allowable shear stress.
- 3. Shear force induced in fastener or mounting device from the application of a 250-pound (1112 N) point load shall be less than the allowable lateral load of either the fastener or mounting device or the supporting structure, whichever is the smaller allowable load.
- 4. Tensile force induced in a fastener by a direct tension force of a 250-pound (1112 N) point load, plus the maximum moment from the application of a 250-pound (1112 N) point load, shall be less than the allowable withdrawal load between the fastener and supporting structure.
  - 5. Grab bars shall not rotate within their fittings.

1115B.8.4 Surface. A grab bar and any wall or other surface adjacent to it shall be free of any sharp or abrasive elements. Edges shall have a minimum radius of  $\frac{1}{8}$  inch (3.2 mm).

#### 1115B.9 Toilet Room Fixtures and Accessories.

1115B.9.1 Lavatory fixtures. The requirements of this subsection shall apply to lavatory fixtures, vanities and built-in lavatories

- 1. A clear floor space 30 inches by 48 inches (762 mm by 1219 mm) complying with Section 1118B.4 shall be provided in front of a lavatory to allow a forward approach. Such clear floor space shall adjoin or overlap an accessible route and shall extend into knee and toe space underneath the lavatory.
- 2. Mirrors shall be mounted with the bottom edge no higher than 40 inches (1016 mm) from the floor.
- 1115B.9.2 Towel, sanitary napkins, waste receptacles. Where towel, sanitary napkins, waste receptacles, and other similar dispensing and disposal fixtures are provided, at least one of each type shall be located with all operable parts, including coin slots, within 40 inches (1016 mm) from the finished floor.
- 1115B.9.3 Toilet tissue dispensers. Toilet tissue dispensers shall be located on the wall within 12 inches (305 mm) of the front edge of the toilet seat. Dispensers that control delivery or that do not permit continuous paper flow shall not be used. See Figure 11B-1A.
- 1115B.9.4 Urinals. Where urinals are provided, at least one shall have a clear floor space 30 inches by 48 inches (762 mm by 1219 mm) in front of the urinal to allow forward approach. This clear space shall comply with Section 1118B.4.
- 1115B.9.5 Interior surfaces. In other than dwelling units, toilet room floors shall have a smooth, hard, nonabsorbent surface such as portland cement, concrete, ceramic tile or other approved ma-

terial which extends upward onto the walls at least 5 inches (127 mm). Walls within water closet compartments and walls within 24 inches (610 mm) of the front and sides of urinals shall be similarly finished to a height of 48 inches (1219 mm) and, except for structural elements, the materials used in such walls shall be a type which is not adversely affected by moisture.

1115B.9.6 Shower areas. Showers in all occupancies shall be finished as specified in Section 1115B.9.5 to a height of not less than 70 inches (1778 mm) above the drain inlet. Materials other than structural elements used in such walls shall be of a type which is not adversely affected by moisture.

1115B.9.7 Doors and panels. Doors and panels of shower and bathtub enclosures shall be substantially constructed from approved, shatter-resistant materials. Hinged shower doors shall open outward.

1115B.9.8 Glazing for shower and bathtub enclosures. Glazing used in doors and panels of shower and bathtub enclosures shall be fully tempered, laminated safety glass or approved plastic. When glass is used, it shall have minimum thickness of not less than 1/8 inch (3.2 mm) when fully tempered, or 1/4 inch (6.4 mm) when laminated, and shall pass the test requirements of UBC Standard 24-2.

1115B.9.9 Plastics. Plastics used in doors and panels of showers and bathtub enclosures shall be of a shatter-resistant type.

#### TABLE 1115B-1—SUGGESTED DIMENSIONS FOR CHILDREN'S USE

The Division of the State Architect, Access Compliance recommends the following dimensions as adequately serving the needs of children in projects under our jurisdiction. These recommendations are based on the federal "Recommendations for Accessibility for Children in Elementary School" and other recognized publications on access for children:

- A = Adult Dimensions (age 12 and over)
- E = Elementary Dimensions
- K = Kindergarten and Pre-school Dimensions

		SUGGESTED	
DIMENSION	A (Inches)	E (Inches)	K (Inches)
Toilet centering from wall	18	15	12
Toilet seat height/Dimensions to top of seat	<i>17-19</i>	15	10-12
Grab bar height (side)	33	27	20-22
Toilet paper in front of toilet	12 max.	6 max.	6 max.
Napkin disposal in front of toilet	12 max.	12 max.	N/A
Dispenser or mirror height	40 max.	36 max	32 max.
Lavatory/sink top height	34 max.	29 max.	24 max.
Lavatory/sink knee clearance	27 min.	24 min.	19 min.
Urinal lip height	17 max.	15 max.	13 min.
Urinal flush handle height	44 max.	37 max.	32 max.
Drinking fountain bubbler height	36 max.	32 max.	30 max.
Drinking fountain knee clearance	27 min.	24 min.	22 min.
Ramp/stair handrail height	34-38	27	22

### SECTION 1116B — ELEVATORS AND SPECIAL ACCESS (WHEELCHAIR) LIFTS

1116B.1 Elevators. Elevators shall be accessible. Elevators required to be accessible shall be designed and constructed to comply with this section.

1116B.1.1 General. Size of cab and control locations and requirements for accommodation of people with disabilities.

In buildings two or more stories in height, served by an elevator, or a building served by an elevator required by Chapter 11B, or a building served by an elevator required for accessibility by Section 101.17, all elevators provided shall accommodate a wheelchair.

**EXCEPTIONS:** 1. When the enforcing agency determines that compliance with any regulation under this section would create an unreasonable hardship, an exception to such regulation shall be granted when equivalent facilitation is provided, and where it can be demonstrated that a person using a wheelchair can enter and operate the elevator.

2. These provisions shall not apply to existing buildings when legal or physical constraints will not allow compliance with these regulations or equivalent facilitation without creating an unreasonable hardship. See Section 101.17.

1116B.1.2 Operation and leveling. The elevator shall be automatic and provided with a self-leveling feature that will automatically bring the car to the floor landings within a tolerance of plus or minus  $^1/_2$  inch (12.7 mm) under normal loading and unloading conditions. This self-leveling shall, within its zone, be entirely au-

tomatic and independent of the operating device and shall correct the overtravel or undertravel. The car shall also be maintained approximately level with the landing, irrespective of load.

The clearance between the car platform sill and the edge of the hoistway landing shall be no greater than  $1^{1}/4$  inches (32 mm).

1116B.1.3 Door operation. Power-operated horizontally sliding car and hoistway doors opened and closed by automatic means shall be provided.

1116B.1.4 Door size. Minimum clear width for elevator doors shall be 36 inches (914 mm).

1116B.1.5 Door protective and reopening device. Doors closed by automatic means shall be provided with a door-reopening device that will function to stop and reopen a car door and adjacent hoistway door in case the car door is obstructed while closing.

This reopening device shall also be capable of sensing an object or person in the path of a closing door without requiring contact for activation at a nominal 5 inches and 29 inches (127 mm and 737 mm) above the floor.

Door-reopening devices shall remain effective for a period of not less than 20 seconds.

After such an interval, the doors may close in accordance with the requirements of ANSI 17.1-86, the American Society of Mechanical Engineers (ASME) document ASME 17.1-1990.

1116B.1.6 Hall call. The minimum acceptable time from notification that a car is answering a call (lantern and audible signal) until the doors of the car start to close shall be calculated by the following equation:

T = D / (1.5 ft/s) or T = D / (445 mm/s)

Where T is the total time in seconds and D is the distance from a point in the lobby or landing area 60 inches (1524 mm) directly in front of the farthest call button controlling that car to the centerline of its hoistway door (see Figure 11B-40D). For cars with incar lanterns, T begins when the lantern is visible from the vicinity of hall call buttons and an audible signal is sounded.

1116B.1.7 Car call. The minimum acceptable time for doors to remain fully open shall not be less than five seconds.

1116B.1.8 Car inside. The car inside shall allow for the turning of a wheelchair. The minimum clear distance between walls or between wall and door, excluding return panels, shall not be less than 80 inches by 54 inches (2032 mm by 1372 mm) for centeropening doors, and 68 inches by 54 inches (1727 mm by 1372 mm) for side-slide openings doors. See Figure 11B-40A. Minimum distance from wall to return panel shall not be less than 51 inches (1295 mm).

The centerline of elevator floor buttons shall be no higher than 54 inches (1372 mm) above the finish floor for side approach and 48 inches (1219 mm) for front approach. Except for photoelectric tube bypass switches, emergency controls, including the emergency stop and alarm, shall be grouped in or adjacent to the bottom of the panel and shall be no lower than 2 feet 11 inches (889 mm) from the floor.

For multiple controls only, one set must comply with these height requirements. Floor buttons shall be provided with visual indicators to show when each call is registered. The visual indicators shall be extinguished when each call is answered. The emergency telephone handset shall be positioned no higher than 4 feet (1219 mm) above the floor, and the handset cord shall be a minimum of 2 feet 5 inches (737 mm) in length. If the telephone system is located in a closed compartment, the compartment door hardware shall be lever type conforming to the provisions of Section 1003.3.1.8, type of lock or latch. Emergency intercommunication shall not require voice communication.

**NOTE:** Where possible, a 48-inch (1219 mm) maximum height for elevator floor buttons is preferred.

1116B.1.9 Car controls. Identification for the visually impaired shall be as follows:

Passenger elevator car controls shall have a minimum dimension of  $^{3}/_{4}$  inch (19.1 mm) and shall be raised  $^{1}/_{8}$  inch (3.2 mm) plus or minus  $^{1}/_{32}$  inch (0.8 mm) above the surrounding surface.

Control buttons shall be illuminated, shall have square shoulders and shall be activated by a mechanical motion that is detectable.

All control buttons shall be designated by  $^{5}/_{8}$ -inch-minimum (15.9 mm) characters that conform to Section 1117B.5.5, or standard raised symbol immediately to the left of the control button. Grade 2 Braille that conforms to Section 1117B.5.6 shall be located immediately below the character or symbol. A minimum clear space of  $^{3}/_{8}$  inch (9.5 mm) or other suitable means of separation shall be provided between rows of control buttons.

NOTE: See Figure 11B-40B.

The raised characters and symbols shall be white on a black background.

Controls and emergency equipment identified by raised symbols shall include, but not be limited to, door open, door close, alarm bell, emergency stop and telephone. The call button for the main entry floor shall be designated by a raised star at the left of the floor designation.

1116B.1.10 Hall call buttons. The centerline of the hall call buttons shall be 42 inches (1067 mm) above the floor. Buttons shall be a minimum of  $^3$ /<sub>4</sub>-inch (19.1 mm) in size and shall be raised  $^1$ /<sub>8</sub> inch (3.2 mm) [plus or minus  $^1$ /<sub>32</sub> inch (0.8 mm)] above the surrounding surface. Visual indication shall be provided to show each call registered and extinguished when answered. Objects adjacent to, and below, hall call buttons shall not project more than 4 inches (102 mm) from the wall. Hall call buttons shall be internally illuminated with a white light over the entire surface of the button.

1116B.1.11 Handrails. A handrail shall be provided on one wall of the car, preferably the rear. The rails shall be smooth, and the inside surface at least  $1^{1/2}$  inches (38 mm) clear of the walls at a nominal height of 32 inches (813 mm) from the floor. Nominal equals  $\pm 1$  inch (25 mm).

**NOTE:** Thirty-two inches (813 mm) required to reduce interference with car controls where lowest button is centered at 35 inches (889 mm) above floor.

1116B.1.12 Minimum illumination. The minimum illumination at the car controls threshold and the landing when the car and landing doors are open shall not be less than 5 foot-candles (54 lx).

1116B.1.13 Hall lantern. A visual and audible signal shall be provided at each hoistway entrance indicating to the prospective passenger the car answering the call and its direction of travel as follows:

The visual signal for each direction shall be a minimum of  $2^{1/2}$ -inches (64 mm) high by  $2^{1/2}$ -inches (64 mm) wide and visible from the proximity of the hall call button.

The audible signal shall sound once for the up direction and twice for the down direction or of a configuration that distinguishes between up and down elevator travel.

The centerline of the fixture shall be located a minimum of 6 feet (1829 mm) in height from the lobby floor.

The use of in-car lanterns, located in or on the car doorjambs, visible from the proximity of the hall call buttons and conforming to the above requirements, shall or will be acceptable.

The use of arrow shapes are preferred for visible signals.

1116B.1.14 Doorjamb marking. Passenger elevator landing jambs on all elevator floors shall have the number of the floor on which the jamb is located designated by raised characters that are a minimum of 2 inches (51 mm) in height and conform to Section 1117B.5.5 and Grade 2 Braille that conforms to Section 1117B.5.6 located 60 inches on center (1524 mm) above the floor on the jamb panels on both sides of the door so that they are visible from within the elevator. On the grade level, a raised five pointed star shall be placed to the left of the raised character. The outside diameter of the star shall be 2 inches. Braille shall be placed below the corresponding raised characters.

The raised characters shall otherwise comply with Sections 1117B.5.3, 1117B.5.4 and 1117B.5.2. See Figure 11B-40B.

1116B.1.15 Location. Passenger elevators shall be located near a major path of travel, and provisions shall be made to ensure that they remain accessible and usable at all times the building is occupied.

1116B.2 Special Access (Wheelchair) Lifts. Special access wheelchair lifts may be provided between levels in lieu of passenger elevators when the vertical distance between landings, as well as the structural design and safeguards are as allowed by the State of California, Division of the State Architect, Access Compliance, the Department of Industrial Relations, Division of Occupational Safety and Health and any applicable safety regulations of other administrative authorities having jurisdiction.

If lifts are provided, they shall be designed and constructed to facilitate unassisted entry, operation and exit from the lift and shall comply with the restrictions and enhancements of this section in conjunction with Sections 3093 to 3094, Part 7, of Title 24, of the California Code of Regulations.

Additionally, lifts may be provided as part of an accessible route only for the following conditions:

- 1116B.2.1 To provide an accessible route to a performing area in an assembly occupancy, or to a speaking area or similar place (such as a dais for "head table") in an assembly or Group B Occupancy.
- 1116B.2.2 To comply with the wheelchair viewing position lineof-sight and dispersion requirements of Section 1104B.3.5.
- 1116B.2.3 To provide access to incidental occupiable spaces and rooms which are not open to the general public and which house no more than five persons, including, but not limited to, equipment control rooms and projection booths.
- 1116B.2.4 To provide access where existing site constraints or other constraints make use of a ramp or an elevator infeasible.

**EXCEPTIONS:** 1. The provisions of this section shall not apply to existing buildings when physical constraints will not allow compliance with these regulations or equivalent facilitation without creating an unreasonable hardship.

NOTE: See Section 101.17.

- 2. When the enforcing agency determines that compliance with any regulation under this section would create an unreasonable hardship, an exception to such regulation shall be granted when equivalent facilitation is provided.
- 3. The installation of lifts as part of an accessible route for additions or alterations is not limited to the four conditions required by Section 1116B.
- 1116B.2.4.1 Landing size. In new construction, the minimum size of landings specified in this section shall be 60 inches by 60 inches (1524 mm by 1524 mm). Other dimensions may be substituted

where it can be demonstrated that a person using a wheelchair measuring 30 inches by 48 inches (762 mm by 1219 mm) can enter and operate the lift safely.

- 1116B.2.4.2 Relationship to the path of travel. Level and clear floor areas or landings as specified in this section shall be part of "path of travel" requirements. See Section 217.
- 1116B.3 When provided as a means of egress. Special access (wheelchair) lifts, when provided as a component in an accessible means of egress, shall conform to the requirements of Section 1116B.3.
- 1116B.3.1 Standby Power. To ensure continued operation in case of primary power loss, special access (wheelchair) lifts shall be provided with standby power or with self-rechargeable battery power that provides sufficient power to operate all platform lift functions for a minimum of 5 (five) upward and downward trips.
- 1116B.3.2 Special access (wheelchair) lifts, when provided per Section 1116B.2.2, are permitted to be a component of an accessible means of egress when the area served by the special access lift does not serve more than 4 wheelchair viewing positions and where any one of the following conditions exist:
  - 1. The building has a supervised automatic sprinkler system.
- 2. The maximum distance from the point where the wheelchair occupant is seated to a point where the occupant has a choice of two directions of travel to an exit shall not exceed 30 feet (9144 mm). The length of the path of travel shall include the vertical travel distance of the lift.

#### SECTION 1117B — OTHER BUILDING COMPONENTS

1117B.1 Water Fountains (Drinking).

1117B.1.1 General. Where water fountains are provided, they shall comply with this section.

In new construction, where only one drinking fountain area is provided on a floor, there shall be a drinking fountain that is accessible to individuals who use wheelchairs in accordance with Section 1115B.2.1.5 and one accessible to those who have difficulty bending or stooping. This can be accommodated by the use of "hilow" fountains, or by such other means as would achieve the required accessibility for each group on each floor.

1117B.1.2 Alcoves. Water fountains shall be located completely within alcoves or otherwise positioned so as not to encroach into pedestrian ways. The alcove in which the water fountain is located shall not be less than 32 inches (813 mm) in width and 18 inches (457 mm) in depth. See Figure 11B-3 of this code. Protruding objects located in alcoves or otherwise positioned so as to limit encroachment into pedestrian ways are permitted to project 4 inches into walks, halls, corridors, passageways or aisles.

EXCEPTION: When the enforcing agency determines that it would create an unreasonable hardship to locate the water fountain in an alcove, the water fountain may project into the path of travel, and the path of travel shall be identifiable to the blind as follows:

- 1. The surface of the path of travel at the water fountain shall be textured so that it is clearly identifiable by a blind person using a cane. The minimum textured area shall extend from the wall supporting the water fountain to 1 foot (305 mm) beyond the front edge of the water fountain and shall extend 1 foot (305 mm) beyond each side of the water fountain, or
- 2. Wing walls shall be provided on each side of the water fountain. The wing walls shall project out from the supporting wall at least as far as the water fountain to within 6 inches (152 mm) of the surface of the path of travel. There shall also be a minimum of 32 inches (813 mm) clear between the wing walls.

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#### 1117B.2 Telephones.

1117B.2.1 General. If public telephones are provided, they shall comply with this section to the extent required by the following table. See Figure 11B-4.

Number of each type of telephone provided on each floor	Minimum number of telephones required to comply with Section 1117B.2 <sup>1</sup>
1 or more single units	1 or at least 50 percent of telephone unit(s) per floor
1 telephone bank	1 or at least 50 percent of telephone unit(s) per bank
2 or more banks	1 or at least 50 percent of telephone unit(s) per bank at least 1 telephone per floor shall meet the requirements for a forward reach telephone

 $^{1}$ Additional public telephones may be installed at any height.

1117B.2.2 Clear floor ground space. A clear floor or ground space at least 30 inches by 48 inches (762 mm by 1219 mm) that allows either a forward or parallel approach by a person using a wheelchair shall be provided at telephones.

1117B.2.3 Size and approach. The minimum clear floor ground space required to accommodate a single, stationary wheelchair and occupant is 30 inches by 48 inches (762 mm by 1219 mm). The minimum clear floor or ground space for wheelchairs may be positioned for forward or parallel approach to an object. Clear floor or ground space for wheelchairs may be part of the knee space required under some objects. See Figure 11B-5A.

1117B.2.4 Relationship of maneuvering clearances to wheelchair spaces. One full unobstructed side of the clear floor or ground space for a wheelchair shall adjoin another wheelchair clear floor space. If a clear floor space is located in an alcove or otherwise confined on all or part of three sides, additional maneuvering clearances shall be provided. See Figure 11B-5A.

1117B.2.5 Floor surfaces of wheelchair spaces. Floor surfaces of wheelchair spaces shall conform to Section 1124B. Bases, enclosures and fixed seats shall not impede approaches to telephones by people who use wheelchairs.

1117B.2.6 Mounting height. The highest operable part of the telephone shall be within the reach ranges specified in Sections 1118B.5 and 1118B.6. Telephones mounted diagonally in a corner that require wheelchair users to reach diagonally shall have the highest operable part no higher than 54 inches (1372 mm) above the floor. See Figure 11B-4.

1117B.2.7 Enclosures. If telephone enclosures are provided, they may overhang the clear floor space required in Sections 1117B.2.2, 1117B.2.3 and 1117B.2.4 within the following limits:

- 1. Side reach possible. The overhang shall be no greater than 19 inches (483 mm). The height of the lowest overhanging part shall be equal to or greater than 27 inches (686 mm). See Figure 11B-4 (a).
- 2. Full-height enclosures. Entrances to full-height enclosures shall be 30 inches (762 mm) minimum. See Figure 11B-4 (b).
- 3. Forward reach required. If the overhang is greater than 12 inches (305 mm), then the clear width of the enclosure shall be 30 inches (762 mm) minimum; if the clear width of the enclosure is less than 30 inches (762 mm), then the height of the lowest overhanging part shall be equal to or greater than 27 inches (686 mm). See Figure 11B-4 (c).

4. **Protruding telephone enclosures.** Where telephone enclosures protrude into walls, halls, corridors or aisles, they shall also comply with Section 1133B.8.6.

1117B.2.8 Telephone equipment for hearing impaired persons. Telephones shall be equipped with a receiver that generates a magnetic field in the area of the receiver cap. If banks of public telephones are provided, at least one in each bank and a total of at least 25 percent of the total number of public telephones, including closed-circuit telephones in a building or facility, shall be equipped with a volume control. Such telephones shall be capable of a minimum of 12 dBA and a maximum of 18 dBA above normal. If an automatic reset is provided, 18 dBA may be exceeded. Public telephones with volume control shall be hearing aid compatible and shall be identified by a sign containing a depiction of a telephone handset with radiating sound waves.

#### 1117B.2.9 Text telephones.

1117B.2.9.1 Where required. If a total of four or more public pay telephones are provided at the interior and exterior of a site, and if at least one of the total is in an interior location, then at least one interior public text telephone shall be provided.

**EXCEPTIONS:** 1. If an interior public pay telephone is provided in a stadium or arena, in a convention center, in a hotel with a convention center, or in a covered mall, at least one interior public text telephone shall be provided in the facility.

2. If a public pay telephone is located in or adjacent to a hospital emergency room, hospital recovery room or hospital waiting room, one public text telephone shall be provided at each location.

1117B.2.9.2 General. Text telephones shall comply with the following requirements:

- 1. Text telephones used with a pay telephone shall be permanently affixed within or adjacent to the telephone enclosure. If an acoustic coupler is used, the telephone cord shall be sufficiently long to allow connection of the text telephone and the telephone receiver.
- 2. Pay telephones designed to accommodate a portable text telephone shall be equipped with a shelf and an electrical outlet within or adjacent to the telephone enclosure. The telephone handset shall be capable of being placed flush on the surface of the shelf. The shelf shall be capable of accommodating a text telephone and shall have 6 inches (152 mm) minimum vertical clearance in the area where the text telephone is to be placed.
- 3. Equivalent facilitation may be substituted for the requirements of this section. For example, a portable text telephone may be made available in a hotel at a registration desk if it is available on a 24-hour basis for use with nearby public pay phones. In this instance, at least one pay phone shall comply with Item 2. In addition, if an acoustic coupler is used, the telephone handset cord shall be sufficiently long to allow connection of the text telephone and the telephone receiver. Directional signage shall comply with Section 1117B.5.

1117B.2.9.3 Signage. Text telephones shall be identified by the International TTY symbol (see Figure 11B-14A). If a facility has a public text telephone, directional signage indicating the location of the nearest such telephone shall be placed adjacent to all banks of telephones that do not contain a text telephone. Such directional signage shall include the International TTY symbol. If a facility has no banks of telephones, the directional signage shall be provided at the entrance or in a building directory.

1117B.2.10 Controls. Telephones shall have push-button controls where service for such equipment is available.

1117B.2.11 Cord length. The cord from the telephone to the handset shall be at least 29 inches (737 mm) long.

- 1117B.2.12 Telephone books. If telephone books are provided, they shall be located in a position that complies with the reach ranges in Sections 1118B.5 and 1118B.6.
- 1117B.3 Kitchens. See Section 1133A.
- 1117B.4 Swimming Pools. See Section 1104B.4.3.
- 1117B.5 Signs and Identification.

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**NOTE:** California's standards for signage are more stringent and are significantly larger and wider than Federal law, Americans with Disabilities Act (ADA) Section 4.30.

- 1117B.5.1 General. When new or additional signs and/or identification devices are provided, or when existing signs and/or identification devices are replaced or altered, the new or altered signs and/or identification devices shall comply with 1117B.5. The addition of or replacement of signs and/or identification devices shall not trigger any additional path of travel requirements.
- 1. **Identification signs.** When signs identify permanent rooms and spaces of a building or site, they shall comply with 1117B.5.2, 1117B.5.3, 1117B.5.5, 1117B.5.6 and 1117B.5.7.
  - NOTES:1. For other means of egress signs and identification provisions adopted by SFM & DSA/AC see Chapter 10, Sections 1003.2.8.1 for Visual Exit Signs, 1003.2.8.2 for Where Required, 1003.2.8.3 for Graphics, 1003.2.8.4 for Illumination, 1003.2.8.5 for Power Source, 1003.2.8.6 for Tactile Exit Signage, 1003.2.8.6.1 for Where Required, 1003.3.3.1.3.1 for Tactile Stair Level Identification Sign, and 1003.3.1.10 for Special Egress-control Devices.
  - 2. See also Section 1116B for additional signage requirements applicable to elevators and Section 1115B.5 for sanitary facilities.
- 2. **Directional and informational signs.** When signs direct to or give information about permanent rooms and space of a building or site, they shall comply with 1117B.5.2, 1117B.5.3 and 1117B.5.4.
- 3. Accessibility signs. When signs identify, direct or give information about accessible elements and feature of a building or site, they shall include the appropriate symbol of accessibility and shall comply with 1117B.5.2 and, when applicable, 1117B.5.8.
- 1117B.5.2 Finish and contrast. Characters, symbols and their background shall have a non-glare finish. Characters and symbols shall contrast with their background, either light on a dark background or dark on a light background.
- 1117B.5.3 Proportions. Characters on signs shall have a widthto-height ratio of between 3:5 and 1:1 and a stroke width to height ratio of between 1:5 and 1:10.
- 1117B.5.4 Character height. Characters and numbers on signs shall be sized according to the viewing distance from which they are to be read. The minimum height is measured using an uppercase X. Lowercase characters are permitted. For signs suspended or projected above the finish floor in compliance with Section 1133B.8.6, the minimum character height shall be 3 inches (76 mm).
- 1117B.5.5 Raised characters and pictorial symbol signs. When raised characters are required or when pictorial symbols (pictograms) are used on such signs, they shall conform to the following requirements:
- 1. Character type. Characters on signs shall be raised  $^{1}/_{32}$ -inch (0.794 mm) minimum and shall be sans serif uppercase characters accompanied by Grade 2 Braille complying with 1117B.5.6.
- 2. Character size. Raised characters shall be a minimum of  $^5/_8$  inch (15.9 mm) and a maximum of 2 inches (51 mm) high.

- 3. Pictorial symbol signs (pictograms). Pictorial symbol signs (pictograms) shall be accompanied by the verbal description placed directly below the pictogram. The outside dimension of the pictogram field shall be a minimum of 6 inches (152 mm) in height.
- 4. Character placement. Characters and Braille shall be in a horizontal format. Braille shall be placed a minimum of  $^3/_8$  inch and a maximum of  $^1/_2$  inch directly below the tactile characters; flush left or centered. When tactile text is multi-lined, all Braille shall be placed together below all lines of tactile text.
- 1117B.5.6 Braille. Contracted Grade 2 Braille shall be used wherever Braille is required in other portions of these standards. Dots shall be  $^{1}/_{10}$  inch (2.54 mm) on centers in each cell with  $^{2}/_{10}$ -inch (5.08 mm) space between cells, measured from the second column of dots in the first cell to the first column of dots in the second cell. Dots shall be raised a minimum of  $^{1}/_{40}$  inch (0.635 mm) above the background. Braille dots shall be domed or rounded.
- 1117B.5.7 Mounting location and height. Where permanent identification signs are provided for rooms and spaces, signs shall be installed on the wall adjacent to the latch side of the door. Where there is no wall space on the latch side, including at double leaf doors, signs shall be placed on the nearest adjacent wall, preferably on the right.

Where permanent identification signage is provided for rooms and spaces they shall be located on the approach side of the door as one enters the room or space. Signs that identify exits shall be located on the approach side of the door as one exits the room or space.

Mounting height shall be 60 inches (1524 mm) above the finish floor to the center line of the sign. Mounting location shall be determined so that a person may approach within 3 inches (76 mm) of signage without encountering protruding objects or standing within the swing of a door.

**NOTE:** See also Section 1115B.5 for additional signage requirements applicable to sanitary facilities.

#### 1117B.5.8 Symbols of accessibility.

1117B.5.8.1 Symbols of accessibility. The International Symbol of Accessibility shall be the standard used to identify facilities that are accessible to and usable by physically disabled persons as set forth in these building standards and as specifically required in this section. See Figure 11B-6.

**EXCEPTION:** Signs need not be provided for facilities within an adaptable dwelling unit, or within an accessible patient or guestroom.

1117B.5.8.1.1 Color of symbol. The symbol specified above shall consist of a white figure on a blue background. The blue shall be equal to Color No. 15090 in Federal Standard 595B.

EXCEPTION: The appropriate enforcement agency may approve special signs and identification necessary to complement decor or unique design when it is determined that such signs and identification provide adequate direction to persons with disabilities.

- 1117B.5.8.1.2 Entrance signs. All building entrances that are accessible to and usable by persons with disabilities shall be identified with a minimum of one International Symbol of Accessibility and with additional directional signs, utilizing the symbol, at junctions, to be visible to persons along approaching pedestrian ways.
- 1117B.5.8.1.3 Information posted. Buildings that have been remodeled to provide specific sanitary facilities and/or elevators for public use that conform to these building standards shall have this information posted in the building lobby, preferably as part of the building directory. The information shall be accompanied by the International Symbol of Accessibility.

- 1117B.5.8.2 International TTY symbol. Where the International TTY Symbol is required, it shall comply with Figure 11B-14A.
- 1117B.5.8.3 Volume control telephones. Where telephones with volume controls are required to be identified, the identification symbol shall be a telephone hand set with radiating sound waves, such as shown in Figure 11B-14B.
- 1117B.5.8.4 Assistive listening systems. Where assistive listening systems are required to be identified by the International Symbol of Access for Hearing Loss, it shall comply with Figure 11B-14C.
- 1117B.5.9 Traffic-control devices. Pole-supported pedestrian traffic-control buttons shall be identified with color coding consisting of a textured horizontal yellow band 2 inches (51 mm) in width encircling the pole, and a 1-inch wide (25 mm) dark border band above and below this yellow band. Color coding should be placed immediately above the control button. Control buttons shall be located no higher than 48 inches (1219 mm) above the surface adjacent to the pole.
- 1117B.5.10 Signs for text telephones. Whenever signs shall refer to text telephones for people who are deaf or hard of hearing, the term "TTY" shall be used; the term "TDD" shall not be used.
- 1117B.5.11 Cleaner air symbol. "STRICTLY FOR PUBLICLY FUNDED FACILITIES OR ANY FACILITIES LEASED OR RENTED BY STATE OF CALIFORNIA. NOT CONCESSIONAIRES." This symbol shall be the standard used to identify a room, facility and paths of travel that are accessible to and usable by people who are adversely impacted by airborne chemicals or particulate(s) and/or the use of electrical fixtures and/or devices. When used, the symbol shall comply with Figure 11B-40.
- 1117B.5.11.1 Color and size of symbol. The symbol shall be used when the following minimum conditions are met. The symbol, which shall include the text "Cleaner Air" as shown, shall be displayed either as a negative or positive image within a square that is a minimum of 6 inches on each side. The symbol may be shown in black and white or in color. When color is used, it shall be Federal Blue (Color No. 15090 Federal Standard 595B) on white, or white on Federal Blue. There shall be at least a 70% color contrast between the background of the sign from the surface that it is mounted on.

Strictly for publicly funded public facilities or any facilities leased or rented by State of California. Not concessionaires.

- 1117B.5.11.2 Conditions of use. Use of the cleaner air symbol is voluntary. The cleaner air symbol shall be permitted for use to identify a path of travel, and a room or a facility when the following is met.
- 1. Floor or wall coverings, floor or wall covering adhesives, carpets, formaldehyde-emitting particleboard cabinetry, cupboards or doors have not been installed or replaced in the previous 12 months.
- 2. Incandescent lighting provided in lieu of fluorescent or halogen lighting, and electrical systems and equipment shall be operable by or on behalf of the occupant or user of the room, facility or path of travel.
- 3. Heating, ventilation, air conditioning and their controls shall be operable by or on behalf of the occupant or user.
- 4. To maintain "cleaner-air" designation only nonirritating, nontoxic products will be used in cleaning, maintenance, disinfection, pest management or for any minimal touch-ups that are essential for occupancy of the area. Deodorizers or Fragrance Emission Devices and Systems (FEDS) shall not be used in the

- designated area. Pest control practices for cleaner-air areas shall include the use of bait stations using boric acid, sticky traps and silicon caulk for sealing cracks and crevices. Areas shall be routinely monitored for pest problems. Additional nontoxic treatment methods, such as temperature extremes for termites, may be employed in the event of more urgent problems. These pest control practices shall not be used 48 hours prior to placement of the sign, and the facility shall be ventilated with outside air for a minimum of 24 hours following use or application.
- 5. Signage shall be posted requesting occupants or users not to smoke or wear perfumes, colognes or scented personal care products. Fragranced products shall not be used in the designated cleaner-air room, facility or path of travel.
- 6. A log shall be maintained on site, accessible to the public either in person or by telephone, e-mail, fax or other accessible means as requested. One or more individuals shall be designated to maintain the log. The log shall record any product or practice used in the cleaner-air designated room, facility or path of travel, as well as scheduled activities, that may impact the Cleaner-Air designation. The log shall also include the product label as well as the Material Safety Data Sheets (MSDS).
- 1117B.5.11.3 Removal of symbol. If the path of travel, room and/ or facility identified by the cleaner air symbol should temporarily or permanently cease to meet the minimum conditions as set forth above, the cleaner air symbol shall be removed and shall not be replaced until the minimum conditions are again met.
- 1117B.6 Controls and Operating Mechanisms. See also Sections 210-7(g), 380-8(c) and 760-16, California Electrical Code, for electrical installation.

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- 1. **General.** Controls and operating mechanisms required to be accessible by Section 101.17.11 shall comply with the requirements of this section.
- 2. Clear floor space. Clear floor space complying with Section 1118B.4 that allows a forward or parallel approach by a person using a wheelchair shall be provided at controls, dispensers, receptacles and other operable equipment.
- 3. **Height.** The highest operable part of all controls, dispensers, receptacles and other operable equipment shall be placed within at least one of the reach ranges specified in Sections 1118B.5 and 1118B.6. Electrical and communication system receptacles on walls shall be mounted no less than 15 inches (381 mm) above the floor.
  - **EXCEPTION:** These requirements do not apply where the use of special equipment dictates otherwise or where electrical and communications systems receptacles are not normally intended for use by building occupants.
- 4. **Operation.** Controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist. The force required to activate controls shall be no greater than 5 pounds (22.2 N) of force.

1117B.7 Automated Teller Machines and Point of Sale Machines.

#### 1117B.7.1 Definitions.

1. AUTOMATED TELLER MACHINE (ATM) means any electronic information processing device, including a point-of-sale machine, used by a financial institution or other business entity and its customers for the primary purpose of executing financial transactions between itself and its customers. For the purposes of this section, automated teller machine includes point-of-sale machines used in grocery stores, ticket sales facilities, and other business entities, but does not include card-reading-devices located on fuel pump islands at gasoline service stations and motor-vehicle fuel facilities.

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- 2. ATM SITE means that immediate area which is within or made or to be made part of an existing building or a building to be constructed, and to which one or more ATMs is or shall be affixed.
- 3. ATM INSTALLATION means a single ATM structurally affixed to a building or other structure.
- 1117B.7.2 General. Where ATMs are provided for the public, they shall comply with this section.
  - EXCEPTIONS: 1. In grocery stores and other retail outlets with point-of-sale machines located at individual checkstands, machines that are located at accessible checkstands must be made accessible. Where machines are located away from individual checkstands, they must all be made accessible.
  - 2. Where the enforcing agency determines that compliance with this regulation would create an unreasonable hardship, an exception may be granted when equivalent facilitation is provided through the use of other methods or materials.
  - 3. In existing buildings, these regulations shall not apply when legal or physical constraints would not allow compliance with these regulations or equivalent facilitation without creating an unreasonable hardship. See Section 101.17.11, Item 5.
  - 4. Drive-up-only automated teller machines are not required to comply with this section.
  - 5. Card reading devices located on fuel pump islands at gasoline service stations and motor-vehicle fuel facilities are not required to comply with Sections 1114B through 1126B and all subsections thereunder.
- 1117B.7.3 Controls. Controls for user activation shall comply with the requirements of Section 1117B.6, Item 4, which states that controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist. The force required to activate controls shall be no greater than 5 pounds (22.2 N) of force.
- 1117B.7.4 Clearances and reach range. Free-standing or builtin units not having a clear space under them shall comply with the following as to clearance and reach range.
- 1117B.7.4.1 Where one ATM is provided. Where one ATM is provided at a location, it shall meet the specifications of Section 4.34 of the Americans with Disabilities Act Accessibility Guidelines (ADAAG) as follows:

- 1. The ATM shall be located so that clear floor space complying with Section 1118B.4 is provided to allow a person using a wheelchair to make a forward approach, a parallel approach, or both, to the machine.
- 2. Forward approach only. If only a forward approach is possible, operable parts of all controls shall be placed within the forward reach range specified in Section 1118B.5.
- 3. Parallel approach only. If only a parallel approach is possible, operable parts of controls shall be placed as follows:
  - 3.1 Reach depth not more than 10 inches (254 mm). Where the reach depth to the operable parts of all controls as measured from the vertical plane perpendicular to the edge of the unobstructed clear floor space at the farthest protrusion of the automated teller machine or surround is not more than 10 inches (254 mm), the maximum height from the floor shall be 54 inches (1372 mm).
  - 3.2 Reach depth more than 10 inches (254 mm). Where the reach depth to the operable parts of any control as measured from the vertical plane perpendicular to the edge of the unobstructed clear floor space at the farthest protrusion of the ATM or surround is more than 10 inches (254 mm), the maximum height from the floor shall be as shown in Table 11B-5.
  - 4. Forward and parallel approach. If both a forward and parallel approach are possible, operable parts of controls shall be placed within at least one of the reach ranges in Item 2 or 3.
  - 5. **Bins.** Where bins are provided for envelopes, waste paper, or other purposes, at least one of each type provided shall comply with the applicable reach ranges in Item 2, 3 or 4.

**EXCEPTION:** Where a function can be performed in a substantially equivalent manner by using an alternate control, only one of the controls needed to perform that function is required to comply with this section. If the controls are identified by tactile markings, such markings shall be provided on both controls.

1117B.7.4.2 Where two ATMs are provided. Where two ATMs are provided at a location, one shall comply with Section 1117B.7.4.1, except that the highest operable part shall be 48 inches (1219 mm) maximum. The second ATM is not regulated as to height, including height of display.

TABLE 11B-5—MAXIMUM REACH DEPTH FOR AUTOMATED TELLER MACHINES

REACH DEPTH (X) (Inches)	MAXIMUM HEIGHT (Y) (Inches)		
× 25.4	× 25.4 for mm		
10	54		
11	53.5		
12	53		
13	52.5		
14	51.5		
15	51		
16	50.5		
17	50		
18	49.5		
19	49		
20	48.5		
21	47.5		
22	47		
23	46.5		
24	46		

NOTE: See Figure 11B-5F (d).

- 1117B.7.4.3 Where three or more ATMs are provided. Where three or more ATMs are provided, two shall be used to satisfy Section 1117B.7.4.2, above. For the additional ATMs beyond the first two, at least 50 percent shall comply with Section 1117B.7.4.1. The remainder are not regulated as to height, including height of display. If features provided differ from ATM to ATM, all features shall be equally represented among the accessible ATMs.
- 1117B.7.5 Display. LED, cathode ray, or other screen devices intended to be viewed by the user shall be positioned so they are readily visible to and usable by a person sitting in a wheelchair with approximate eye level of 45 inches (1143 mm), and shall comply with the following requirements:
  - **NOTE:** Automated teller machines allowed to be unregulated as to height in Sections 1117B.7.4 through 1117B.7.4.3 above are also exempt from this section.
- 1. Vertically mounted screen devices. If mounted vertically or tipped no more than 30 degrees away from the viewer, the center line of screens and other screen devices shall be located a maximum of 52 inches (1321 mm) above grade.
- 2. Angle-mounted screen devices. If mounted at an angle between 30 degrees and 60 degrees tipped away from the viewer, the center line of screens and other screen devices shall be located a maximum of 44 inches (1118 mm) above grade.
- 3. Horizontally mounted screen devices. If mounted at an angle between 60 degrees and 90 degrees tipped away from the viewer, the center line of screens and other screen devices shall be located a maximum of 34 inches (864 mm) above grade.
- 1117B.7.6 ATM equipment for persons with vision impairments. Instructions and all information for use shall be made accessible to and independently usable by persons with vision impairments.

### SECTION 1118B — SPACE ALLOWANCE AND REACH RANGES

- 1118B.1 Wheelchair Passage Width. The minimum clear width for single wheelchair passage shall be 32 inches (813 mm) at a point and 36 inches (914 mm) continuously. See Figure 11B-10.
- 1118B.2 Width for Wheelchair Passing. The minimum width for two wheelchairs to pass is 60 inches (1524 mm). See Figure 11B-11.
- 1118B.3 Wheelchair Turning Space. The space required for a wheelchair to make a 180 degree turn is a clear space of 60 inches (1524 mm) diameter [see Figure 11B-12 (a)] or a T-shaped space. See Figure 11B-12 (b).

#### 1118B.4 Clear Floor or Ground Space for Wheelchairs.

- 1. Size and approach. The minimum clear floor or ground space required to accommodate a single, stationary wheelchair and occupant is 30 inches by 48 inches (762 mm by 1219 mm). The minimum clear floor or ground space for wheelchairs may be positioned for forward or parallel approach to an object. Clear floor or ground space for wheelchairs may be part of the knee space required under some objects. See Figure 11B-5A.
- 2. Relationship of maneuvering clearances to wheelchair spaces. One full unobstructed side of the clear floor or ground space for a wheelchair shall adjoin or overlap an accessible route or adjoin another wheelchair clear floor space. If a clear floor space is located in an alcove or otherwise confined on all or a part of three sides, additional maneuvering clearances shall be provided as shown in Figure 11B-5A (b). See Figure 11B-5A.

1118B.5 Forward Reach. If the clear floor space allows only forward approach to an object, the maximum high forward reach allowed shall be 48 inches (1219 mm) [see Figure 11B-5C (b)]. The minimum low forward reach is 15 inches (381 mm). If the high forward reach is over an obstruction, reach and clearances shall be as shown in Figure 11B-5C (b).

1118B.6 Side reach. If the clear floor space allows parallel approach by a person in a wheelchair, the maximum high side reach allowed shall be 54 inches (1372 mm) and the low side reach shall be no less than 9 inches (229 mm) above the floor [see Figure 11B-5D (a) and (b)]. If the side reach is over an obstruction, the reach and clearances shall be as shown in Figure 11B-5D (c). See Figure 11B-5D.

#### SECTION 1119B — SPECIAL STANDARDS OF ACCESSIBILITY FOR BUILDINGS WITH HISTORICAL SIGNIFICANCE

See Section 1135B.

#### SECTION 1120B — FLOORS AND LEVELS

1120B.1 Floors Within Each Story. In buildings and facilities, floors of a given story shall be a common level throughout, or shall be connected by pedestrian ramps, passenger elevators or special access lifts.

EXCEPTIONS: 1. In existing buildings, other than dining banquet and bar facilities, when the enforcing agency determines that compliance with this section would create an unreasonable hardship, an exception shall be granted when equivalent facilitation is provided.

- 2. In existing dining, banquet and bar facilities, when the enforcing agency determines that compliance with this section would create an unreasonable hardship, an exception shall be granted provided that a minimum of 75 percent of the dining, banquet and bar area shall be a common level throughout or shall be connected by pedestrian ramps, passenger elevators or special lifts. See Section 101.17.11, Item 1.4, for new buildings only.
- 3. In existing buildings, this section shall not apply when legal or physical constraints would not allow compliance with this section or equivalent facilitation without creating an unreasonable hardship. See Section 101.17.11, Item 5.
  - 4. Where specifically exempted in other portions of this code.

1120B.2 Floor Surface. The surface of floors shall be slip-resistant and shall comply with Section 1124B.

#### SECTION 1121B — RESERVED

### SECTION 1122B — FIXED OR BUILT-IN SEATING, TABLES, AND COUNTERS

- 1122B.1 Minimum Number. Where fixed or built-in seating, tables, or counters are provided for the public, and in general employee areas, 5 percent, but never less than one, must be accessible as provided in this section.
- 1122B.2 Seating. If seating spaces for persons in wheelchairs are provided at fixed tables or counters, clear floor space complying with Section 1118B.4 shall be provided. Such clear floor space shall not overlap knee space by more than 19 inches (483 mm) (see Figure 11B-13).
- 1122B.3 Knee Clearance. If seating for persons in wheelchairs is provided at fixed tables or counters, knee spaces at least 27 inches (686 mm) high, 30 inches (762 mm) wide and 19 inches (483 mm) deep shall be provided (see Figure 11B-13).

**EXCEPTION:** Knee clearance is not required at checkout counters or service counters.

1122B.4 Height of Work Surfaces. The tops of tables and counters shall be 28 inches to 34 inches (711 mm to 864 mm) from the floor or ground.

Where a single counter contains more than one transaction station, such as (but not limited to) a bank counter with multiple teller windows or a retail sales counter with multiple cash register stations, at least 5 percent, but never less than one, of each type of station shall be located at a section of counter that is at least 36 inches (914 mm) long and no more than 28 to 34 inches (711 to 864 mm) high.

#### SECTION 1123B — ACCESS TO EMPLOYEE AREAS

1123B.1 General. Employee areas shall conform to all requirements of Division of the State Architect/Access Compliance in the California Building Code, Plumbing Code and Electrical Code.

1123B.2 Work Stations. Specific work stations need only comply with aisle width (Sections 1133B.6.1 and 1133B.6.2) and floors and levels (Section 1120B), and entry ways shall be 32 inches (813 mm) in clear width.

EXCEPTION: Accessibility is not required to (1) observation galleries used primarily for security purposes; or (2) in nonoccupiable spaces accessed only by ladders, catwalks, crawl spaces, very narrow passageways, or freight (nonpassenger) elevators, and frequented only by service personnel for repair purposes; such spaces include, but are not limited to, elevator pits, elevator penthouses, mechanical rooms, piping or equipment catwalks.

#### SECTION 1124B — GROUND AND FLOOR SURFACES

1124B.1 General. Ground and floor surfaces along accessible routes and in accessible rooms and spaces, including floors, walks, ramps, stairs and curb ramps, shall be stable, firm, slip-resistant, and shall comply with this section.

1124B.2 Changes in Level. Changes in level up to  $^{1}/_{4}$  inch (6 mm) vertical and without edge treatment [see Figure 11B-5E (c) and (d)]. Changes in level between  $^{1}/_{4}$  inch (6 mm) and  $^{1}/_{2}$  inch (12.7 mm) shall be accomplished by means of a ramp that complies with Figure 11B-5E (d).

1124B.3 Carpet. If carpet or carpet tile is used on a ground or floor surface, then it shall be securely attached; have a firm cushion, pad or backing or no cushion or pad; and have a level loop,

textured loop; level-cut pile, or level-cut/uncut pile texture. The maximum pile height shall be  $^{1}$ / $_{2}$  inch (12.7 mm). Exposed edges of carpet shall be fastened to floor surfaces and have trim along the entire length of the exposed edge. Carpet edge trim shall comply with Section 1124B.2.

1124B.4 Gratings. If gratings are located in walking surfaces, then they shall have spaces no greater than  $^{1}/_{2}$  inch (12.7 mm) wide in one direction (see Figure 11B-7B). If gratings have elongated openings, then they shall be placed so that the long dimension is perpendicular to the dominant direction of travel (see Figure 11B-7B).

#### SECTION 1125B — STORAGE

1125B.1 General. If fixed storage facilities such as cabinets, shelves, closets or drawers are provided where access is required by Section 101.17.11, at least one of each type shall comply with this section. Additional storage may be provided outside of the reach ranges shown in Figure 11B-5D.

1125B.2 Clear Floor Space. A clear floor space at least 30 inches by 48 inches (762 mm by 1219 mm) complying with Section 1118B.4 that allows either a forward or parallel approach by a person using a wheelchair shall be provided at accessible storage facilities.

1125B.3 Height. Accessible storage spaces shall be within at least one of the reach ranges specified in Sections 1118B.5 and 1118B.6. Clothes rods shall be a maximum of 54 inches (1372 mm) from the floor for a side approach (See Figure 11B-5D). Where the distance from the wheelchair to the clothes rod or shelf exceeds 10 inches (254 mm), as in closets without accessible doors, the height and depth to the rod or shelf shall comply with Figure 11B-5D.

1125B.4 Hardware. Hardware for accessible storage facilities shall comply with Section 1117B.6. Touch latches and U-shaped pulls are acceptable.

#### SECTION 1126B — VENDING MACHINES

Install vending machines in compliance with Section 1117B.6, "Controls and Operating Mechanisms."

#### Division II—SITE ACCESSIBILITY

#### SECTION 1127B — EXTERIOR ROUTES OF TRAVEL

1127B.1 General. Site development and grading shall be designed to provide access to all entrances and exterior ground-floor exits, and access to normal paths of travel, and where necessary to provide access, shall incorporate pedestrian ramps, curb ramps, etc. When more than one building or facility is located on a site, accessible routes of travel shall be provided between buildings and accessible site facilities. The accessible route of travel shall be the most practical direct route between accessible building entrances, accessible site facilities and the accessible entrance to the site.

**EXCEPTIONS:** 1. Where the enforcing agency determines that compliance with these regulations would create an unreasonable hardship because of topography, natural barriers, etc., an exception may be granted when equivalent facilitation is provided through the use of other methods and materials.

2. In existing buildings, this section shall not apply in those conditions where, due to legal or physical constraints, the site of the project would not allow compliance with these regulations or equivalent facilitation without creating an unreasonable hardship.

NOTE: See Section 101.17.11, Item 5.

1127B.2 Design and Construction. When accessibility is required by this section, it shall be designed and constructed in accordance with this Building Code. See Section 1114B.1 for a list of applicable sections.

1127B.3 Signs. At every primary public entrance and at every major junction where the accessible route of travel diverges from the regular circulation path along or leading to an accessible route of travel, entrance, or facility, there shall be a sign displaying the International Symbol of Accessibility. Signs shall indicate the direction to accessible building entrances and facilities and shall comply with the requirements found in Sections 1117B.5.1 Item 2 and 1117B.5.8.1.

1127B.4 Outside Stairways. Where stairways occur outside a building, refer to Sections 1006.17 of the 1995 California Building Code, 1115A and 1133B.4.4.

#### 1127B.5 Curb Ramps.

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- 1. **General.** Curb ramps shall be constructed at each corner of street intersections and where a pedestrian way crosses a curb. The preferred and recommended location for curb ramps is in the center of the crosswalk of each street corner. Where it is necessary to locate a curb ramp in the center of the curb return and the street surfaces are marked to identify pedestrian crosswalks, the lower end of the curb ramp shall terminate within such crosswalk areas. See Figure 11B-20C, Case E.
- 2. Width of curb ramps. Curb ramps shall be a minimum of 4 feet (1219 mm) in width and shall lie, generally, in a single sloped plane, with a minimum of surface warping and cross slope.
- 3. Slope of curb ramps. The slope of curb ramps shall not exceed 1 unit vertical to 12 units horizontal (8.33% slope). Transitions from ramps to walks, gutters, or streets shall be flush and free of abrupt changes, except that curb ramps shall comply with Item 5 below. Maximum slopes of adjoining gutters, road surface immediately adjacent to the curb ramp, or accessible route shall not exceed 1 unit vertical to 20 units horizontal (5% slope) within 4 feet (1219 mm) of the top and bottom of the curb ramp. The slope of the fanned or flared sides of curb ramps shall not exceed 1 unit vertical to 10 units horizontal (10% slope).
- 4. Level landing. A level landing 4 feet (1219 mm) deep shall be provided at the upper end of each curb ramp over its full width to permit safe egress from the ramp surface, or the slope of the

fanned or flared sides of the curb ramp shall not exceed 1 unit vertical to 12 units horizontal (8.33% slope).

- 5. **Beveled lip.** The lower end of each curb ramp shall have a  $^{1}/_{2}$  inch (13 mm) lip beveled at 45 degrees as a detectable way-finding edge for persons with visual impairment.
- 6. **Finish.** The surface of each curb ramp and its flared sides shall be stable, firm and slip-resistant and shall be of contrasting finish from that of the adjacent sidewalk.
- 7. **Border.** All curb ramps shall have a grooved border 12 inches (305 mm) wide at the level surface of the sidewalk along the top and each side approximately  $^{3}$ /4 inch (19 mm) on center. All curb ramps constructed between the face of the curb and the street shall have a grooved border at the level surface of the sidewalk. See Figures 11B-19A and 11B-19B.
- 8. **Detectable warnings.** A curb ramp shall have a detectable warning that extends the full width and depth of the curb ramp inside the grooved border when the ramp slope is less than 1 unit vertical to 15 units horizontal (6.7% slope). Detectable warnings shall consist of raised truncated domes with a diameter of nominal 0.9 inch (22.9 mm) at the base tapering to 0.45 inch (11.4 mm) at the top, a height of nominal 0.2 inch (5.08 mm) and a center-tocenter spacing of nominal 2.35 inches (59.7 mm) in compliance with Figure 11B-23A. "Nominal" here shall be in accordance with Section 12-11A and B-102, State Referenced Standards Code. The detectable warning shall contrast visually with adjoining surfaces, either light-on-dark or dark-on-light. The material used to provide contrast shall be an integral part of the walking surface. The domes may be constructed in a variety of methods, including cast in place or stamped, or may be part of a prefabricated surface treatment.

Only approved DSA/AC detectable warning products and directional surfaces shall be installed as provided in the California Code of Regulations (CCR), Title 24, Part 1, Articles 2, 3 and 4. Refer to CCR Title 24, Part 12, Chapter 12-11A and B, for building and facility access specifications for product approval for detectable warning products and directional surfaces.

NOTE: Detectable warning products and directional surfaces installed after January 1, 2001, shall be evaluated by an independent entity, selected by the Department of General Services, Division of the State Architect-Access Compliance for all occupancies, including transportation and other outdoor environments, except that when products and surfaces are for use in residential housing evaluation shall be in consultation with the Department of Housing and Community Development. See Government Code Section 4460.

- 9. **Obstructions.** Curb ramps shall be located or protected to prevent their obstruction by parked cars.
- 10. Diagonal curb ramps. If diagonal (or corner-type) curb ramps have returned curbs or other well-defined edges, such edges shall be parallel to the direction of pedestrian flow. The bottom of diagonal curb ramps shall have 48 inches (1219 mm) minimum clear space as shown in Figure 11B-22 (c) and (d). If diagonal curb ramps are provided at marked crossings, the 48-inch (1219 mm) clear space shall be within the markings (see Figure 11B-20B, Cases C and D). If diagonal curb ramps have flared sides, they shall also have at least a 24-inch-long (610 mm) segment of straight curb located on each side of the curb ramp and within the marked crossing [see Figure 11B-22 (c)].

**NOTES:** 1. For additional curb details, see Figures 11B-19A and 11B-19B.

2. If distance from curb to back of sidewalk is too short to accommodate ramp and a 4-foot (1219 mm) platform as in Figure 11B-20A, Case A, the sidewalk may be depressed longitudinally as in Figure 11B-20A, Case B, or Figure 11B-20B, Case C, or may be widened as in Figure 11B-20B, Case D.

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- 3. If sidewalk is less than 5 feet (1524 mm) wide, the full width of the sidewalk shall be depressed as shown in Figure 11B-20B, Case C.
- 4. As an alternate to Figure 11B-20A, Case A, one ramp may be placed in the center of the curb return as in Figure 11B-20C, Case E.
- 5. When ramp is located in center of curb return, crosswalk configuration must be similar to that shown on the plan to accommodate wheelchairs. (See Figure 11B-22.)
- 6. If planting area width is equal to or greater than ramp length, ramp side slope distance equals 3 feet (914 mm). (See Figure 11B-20D, Case G.)
- 7. For Figure 11B-20C, Case F and Figure 11B-20D, Case G, the longitudinal portion of the sidewalk may need to be depressed as shown in Figure 11B-20A, Case B.
- 8. If located on a curve, the sides of the ramp need not be parallel, but the minimum width of the ramp shall be 4 feet (1219 mm).
- 9. The ramp shall have a 12 inch-wide (305 mm) border with  $^{1}$ / $_{4}$  inch (6 mm) grooves approximately  $^{3}$ / $_{4}$  inch (19 mm) on center. See grooving detail, Figure 11B-20D, Case H.

#### SECTION 1128B — PEDESTRIAN GRADE SEPARATIONS (OVERPASSES AND UNDERPASSES)

Pedestrian ramps on pedestrian grade separations shall comply with the requirements of Section 1133B.5 for ramps.

Cross slopes of walking surfaces shall be the minimum possible and shall not exceed \$^1/4\$ inch (6 mm) per foot (2.083% gradient). The slope of any appreciably warped walking surface shall not exceed 1 unit vertical in 12 units horizontal (8.33% slope) in any direction. Where pedestrian grade separations cross streets or other vehicular traffic ways, and where a street level crossing can reasonably and safely be used by persons with physical disabilities, there shall be provided conforming curb ramps and a usable pathway.

EXCEPTIONS: 1. When the grade differential of the walking surface of a pedestrian grade separation exceeds 14 feet (4267 mm) due to required height clearance and grade conditions, and the enforcing agency finds that because of right-of-way restrictions, topography or natural barriers, wheelchair accessibility or equivalent facilitation would create an unreasonable hardship, such accessibility need not be

provided. However, the requirements in these regulations relating to other types of mobility shall be complied with.

2. For existing facilities, this section shall not apply where, due to legal or physical constraints, the site of the project will not allow compliance with these regulations or equivalent facilitation without creating an unreasonable hardship.

NOTE: See Section 101.17.11, Item 5.

### SECTION 1129B — ACCESSIBLE PARKING REQUIRED

1129B.1 General. Each lot or parking structure where parking is provided for the public as clients, guests or employees, shall provide accessible parking as required by this section. Accessible parking spaces serving a particular building shall be located on the shortest accessible route of travel from adjacent parking to an accessible entrance. In parking facilities that do not serve a particular building, accessible parking shall be located on the shortest accessible route of travel to an accessible pedestrian entrance of the parking facility. In buildings with multiple accessible entrances with adjacent parking, accessible parking spaces shall be dispersed and located closest to the accessible entrances. Table 11B-6 establishes the number of accessible parking spaces required.

**EXCEPTION:** This subsection shall not apply to existing facilities where compliance with local ordinances precludes satisfying the above requirements or of providing equivalent facilitation unless a change of occupancy occurs.

1129B.2 Medical Care Outpatient Facilities. At facilities providing medical care and other services for persons with mobility impairments, parking spaces complying with this section shall be provided in accordance with Table 11B-6 except as follows:

- 1. Outpatient units and facilities. Ten percent of the total number of parking spaces provided serve each such outpatient unit or facility.
- 2. Units and facilities that specialize in treatment or services for persons with mobility impairments. Twenty percent of the total number of parking spaces provided serve each such unit or facility.

TABLE 11B-6—SPACES REQUIRED Establishes the number of accessible parking spaces required.

TOTAL NUMBER OF PARKING SPACES IN LOT OR GARAGE	MINIMUM REQUIRED NUMBER OF SPACES
1-25	1
26-50	2
51-75	3
76-100	4
101-150	5
151-200	6
201-300	7
301-400	8
401-500	9
501-1,000	*
1,001 and over	***

<sup>\*</sup>Two percent of total.

1129B.3 Parking Space Size. Accessible parking spaces shall be located as near as practical to a primary entrance and shall be sized as follows:

1. **Dimensions.** Where single spaces are provided, they shall be 14 feet (4267 mm) wide and lined to provide a 9-foot (2743 mm) parking area and a 5-foot (1524 mm) loading and unloading access aisle on the passenger side of the vehicle. When more than one space is provided in lieu of providing a 14-foot-wide (4267 mm) space for each parking space, two spaces can be provided

within a 23-foot-wide (7010 mm) area lined to provide a 9-foot (2743 mm) parking area on each side of a 5-foot (1524 mm) loading and unloading access aisle in the center. The minimum length of each parking space shall be 18 feet (5486 mm). The words NO PARKING shall be painted on the ground within each five-foot (1524 mm) loading and unloading access aisle. This notice shall be painted in white letters no less than 12 inches (305 mm) high and located so that it is visible to traffic enforcement officials. See Figure 11B-18A.

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<sup>\*\*</sup>Twenty plus one for each 100, or fraction thereof over 1,001.

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- 2. Van space(s). One in every eight accessible spaces, but not less than one, shall be served by an access aisle 96 inches (2438 mm) wide minimum placed on the side opposite the driver's side when the vehicle is going forward into the parking space and shall be designated van accessible as required by Section 1129B.4. All such spaces may be grouped on one level of a parking structure. The words NO PARKING shall be painted on the ground within each eight-foot (2438 mm) loading and unloading access aisle. This notice shall be painted in white letters no less than 12 inches (305 mm) high and located so that it is visible to traffic enforcement officials. See Figures 11B-18B and 18C.
- 3. Arrangement of parking space. In each parking area, a bumper or curb shall be provided and located to prevent encroachment of cars over the required width of walkways. Also, the space shall be so located that persons with disabilities are not compelled to wheel or walk behind parked cars other than their own. Pedestrian ways which are accessible to persons with disabilities shall be provided from each such parking space to related facilities, including curb cuts or ramps as needed. Ramps shall not encroach into any accessible parking space or the adjacent access aisle. The maximum cross slope in any direction of an accessible parking space and adjacent access aisle shall not exceed 2%.

#### EXCEPTIONS: See Figures 11B-18A through 11B-18C.

- 1. Where the enforcing agency determines that compliance with any regulation of this section would create an unreasonable hardship, a variance or waiver may be granted when equivalent facilitation is provided.
- 2. Parking spaces may be provided which would require a person with a disability to wheel or walk behind other than accessible parking spaces when the enforcing agency determines that compliance with these regulations or providing equivalent facilitation would create an unreasonable hardship.

NOTE: See Section 101.17.11, Item 5.

4. Slope of parking space. Surface slopes of accessible parking spaces shall be the minimum possible and shall not exceed 1 unit vertical to 50 units horizontal (2% slope) in any direction.

1129B.4 Identification of Parking Spaces for Off-Street Parking Facilities. Each parking space reserved for persons with disabilities shall be identified by a reflectorized sign permanently posted immediately adjacent to and visible from each stall or space, consisting of a profile view of a wheelchair with occupant in white on dark blue background. The sign shall not be smaller than 70 square inches (4516 mm²) in area and, when in a path of travel, shall be posted at a minimum height of 80 inches (2032 mm) from the bottom of the sign to the parking space finished grade. Signs may also be centered on the wall at the interior end of the parking space at a minimum height of 36 inches (914 mm) from the parking space finished grade, ground or sidewalk. Spaces complying with Section 1129B.3, Item 2 shall have an additional sign stating "Van-Accessible" mounted below the symbol of accessibility.

An additional sign shall also be posted in a conspicuous place at each entrance to off-street parking facilities, or immediately adjacent to and visible from each stall or space. The sign shall not be less than 17 inches by 22 inches (432 mm by 559 mm) in size with lettering not less than 1 inch (25 mm) in height, which clearly and conspicuously states the following:

"Unauthorized vehicles parked in designated accessible spaces not displaying distinguishing placards or license plates issued for persons with disabilities may be towed away at owner's expense. Towed vehicles may be reclaimed at \_\_\_\_\_ or by telephoning \_\_\_\_\_

Blank spaces are to be filled in with appropriate information as a permanent part of the sign.

In addition to the above requirements, the surface of each accessible parking space or stall shall have a surface identification duplicating either of the following schemes:

- 1. By outlining or painting the stall or space in blue and outlining on the ground in the stall or space in white or suitable contrasting color a profile view depicting a wheelchair with occupant; or
- 2. By outlining a profile view of a wheelchair with occupant in white on blue background. The profile view shall be located so that it is visible to a traffic enforcement officer when a vehicle is properly parked in the space and shall be 36 inches high by 36 inches wide (914 mm by 914 mm). See Figures 11B-18A through 11B-18C.

#### SECTION 1130B — PARKING STRUCTURES

All entrances to and vertical clearances within parking structures shall have a minimum vertical clearance of 8 feet 2 inches (2489 mm) where required for accessibility to accessible parking spaces.

**EXCEPTIONS:** 1. Where the enforcing agency determines that compliance with Section 1130B would create an unreasonable hardship, an exception may be granted when equivalent facilitation is provided.

2. This section shall not apply to existing buildings where the enforcing agency determines that, due to legal or physical constraints, compliance with these regulations or equivalent facilitation would create an unreasonable hardship. See Section 101.17.11, Item 5.

### SECTION 1131B — PASSENGER DROP-OFF AND LOADING ZONES

1131B.1 Location. When provided, passenger drop-off and loading zones shall be located on accessible route of travel.

#### 1131B.2 Passenger Loading Zones.

- 1. General. Where provided, one passenger drop-off and loading zone shall provide an access aisle at least 60 inches (1524 mm) wide and 20 feet (6096 mm) long adjacent and parallel to the vehicle pull-up space. Such zones shall be located on a surface with a slope not exceeding 1 unit vertical in 50 units horizontal (2% slope). If there are curbs between the access aisle and the vehicle pull-up space, a curb ramp shall be provided.
- 2. Vertical Clearance. Provide minimum vertical clearance of 114 inches (2896 mm) at accessible passenger loading zones and along at least one vehicle access route to such areas from site entrances and exits.
- 1131B.3 Valet Parking. Valet parking facilities shall provide a passenger loading zone complying with Section 1131B.2 above and shall be located on an accessible route to the entrance of the facility. The parking space requirements of Sections 1129B through 1130B apply to facilities with valet parking.
- 1131B.4 Bus Stop Pads and Shelters. Where provided, provide bus stop pads 96 inches (2438 mm) long (measured parallel to curb or road edge) to the maximum extent allowed by legal or site constraints. Bus stop pads shall connect to an accessible route. Newly constructed bus stop pads must provide a square curb surface between the pad and road or other detectable warning in accordance with Section 1133B.8.5.

NOTE: Detectable warning products and directional surfaces installed after January 1, 2001, shall be evaluated by an independent entity, selected by the Department of General Services, Division of the State Architect-Access Compliance, for all occupancies, including transportation and other outdoor environments, except that when

products and surfaces are used in residential housing evaluation shall be in consultation with the Department of Housing and Community Development. See Government Code Section 4460.

Bus stop pads shall be at same slope as roadway in the direction parallel to roadway, and maximum 2 percent slope perpendicular to roadway.

Where provided, provide bus stop shelters installed so as to permit a wheelchair user to enter the shelter and access a clear floor area of 30 by 48 inches (762 mm by 1219 mm), completely within the shelter. Bus stop shelters shall connect to an accessible route and to bus stop pads. Only approved DSA/AC detectable warning products and directional surfaces shall be installed as provided in the California Code of Regulations (CCR), Title 24, Part 1, Articles 2, 3 and 4. Refer to CCR Title 24, Part 12, Chapter 12-11A and B, for building and facility access specifications for product approval for detectable warning products and directional surfaces.

NOTE: Detectable warning products and directional surfaces installed after January 1, 2001, shall be evaluated by an independent entity, selected by the Department of General Services, Division of the State Architect-Access Compliance, for all occupancies, including transportation and other outdoor environments, except that when products and surfaces are for use in residential housing, evaluation shall be in consultation with the Department of Housing and Community Development. See Government Code Section 4460.

#### SECTION 1132B — OUTDOOR OCCUPANCIES

1132B.1 General. Outdoor occupancies shall be accessible as required in this chapter. See also the general requirements listed in Section 1114B.1.1.

1132B.2 Parks and Recreational Areas. The following parks and recreational areas shall comply with these regulations.

EXCEPTIONS: 1. In existing buildings, when the enforcing agency determines that compliance would create an unreasonable hardship, a variance shall be granted when equivalent facilitation is provided.

- 2. Where the enforcing agency finds that, in specific areas, the natural environment would be materially damaged by compliance with these regulations, such areas shall be subject to these regulations only to the extent that such material damage would not occur.
- 3. Automobile access shall not be provided or paths of travel shall not be made accessible when the enforcing agency determines that compliance with these regulations would create an unreasonable hardship.
- 1. **Campsites.** Campsites, a minimum of two and no fewer than three for each 100 campsites provided, shall be accessible by level

path or ramp and shall have travel routes with slopes not exceeding 1 unit vertical in 12 units horizontal (8.33% slope) to sanitary facilities. Permanent sanitary facilities serving campgrounds shall be accessible to wheelchair occupants.

- 2. **Beaches, picnic areas.** Beaches, picnic areas, day-use areas, vista points and similar areas shall be accessible.
- 3. Sanitary facilities. Sanitary facilities, to the extent that such facilities are provided, each public use area that is accessible to wheelchair occupants by automobile, walks or other paths of travel
- 4. **Boat docks.** Boat docks, fishing piers, etc., shall be accessible.
- 5. **Parking lots.** Parking lots shall be provided with accessible parking spaces and with curb cuts leading to all adjacent walks, paths or trails.
- 6. Trails and paths. Trails, paths and nature walk areas, or portions of these, shall be constructed with gradients which will permit at least partial use by wheelchair occupants. Hard surface paths or walks shall be provided to serve buildings and other functional areas.
- 7. Nature trails. Nature trails and similar educational and informational areas shall be accessible to the blind by the provision of rope guidelines, raised Arabic numerals and symbols for identification, information signs, and related guide and assistance devices.

**NOTE:** For museums, orientation buildings, visitor centers, office buildings, retailstores, restaurants, etc., and sanitary facilities serving these uses, see Sections 1104B through 1111B and sections listed in Section 1114B.1.1.

1132B.3 Highway Rest Areas. The specific standards of accessibility for highway rest areas and similar facilities shall be as follows in Section 1132B.3.1, subject to other provisions in these regulations.

1132B.3.1 Permanent facilities. At least one kind of permanent functional area or facility, as applicable, shall be accessible to persons with disabilities, including:

- 1. A sanitary facility for each sex.
- 2. At least one picnic table and one additional table for each 20 tables, or fraction thereof provided.
  - 3. Information and display areas.
  - 4. Drinking fountains.
  - 5. At least one parking space.
- 6. Curb ramps conforming to Section 1127B.5 shall be provided at pedestrian ways where appropriate.

OCTOBER 12, 2006 SUPPLEMENT

#### Division III—ACCESSIBILITY FOR ENTRANCES, EXITS AND PATHS OF TRAVEL

This division includes additional requirements which supersede less restrictive requirements in Chapter 10 where access is required.

### SECTION 1133B — GENERAL ACCESSIBILITY FOR ENTRANCES, EXITS AND PATHS OF TRAVEL

1133B.1 Building Accessibility. See this chapter.

1133B.1.1 Entrances.

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1133B.1.1.1 Entrances and exterior ground floor exit doors.

1133B.1.1.1.1 All entrances and exterior ground-floor exit doors to buildings and facilities shall be made accessible to persons with disabilities. Doorways shall have a minimum clear opening of 32 inches (813 mm) with the door open 90 degrees, measured between the face of the door and the opposite stop. Openings more than 24 inches (610 mm) in depth shall comply with Sections 1118B.1 and 1118B.2.

**EXCEPTIONS:** 1. Exterior ground-floor exits serving smoke-proof enclosures, stairwells and exit doors servicing stairs only need not be made accessible.

- 2. Exits in excess of those required by Section 1114B.2.1, and which are more than 24 inches (610 mm) above grade are not required to be accessible. Such doors shall have signs warning that they are not accessible. Warning signs shall comply with Section 1117B.5.1, Item 2.
- 3. In existing buildings where the enforcing agency determines that compliance with the building standards of this section would create an unreasonable hardship, an exception shall be granted when equivalent facilitation is provided. Equivalent facilitation would require at least one entrance to be accessible to and usable by persons with disabilities.
- 4. These building standards shall not apply to existing buildings when legalor physical constraints will not allow compliance with these building standards or equivalent facilitation without creating an unreasonable hardship. See Section 101.17.11, Item 5, Special Conditions for Persons with Disabilities Requiring Appeals Action Ratification.
- 1133B.1.1.1.2 Temporary restrictions. During periods of partial or restricted use of a building or facility, the entrances used for primary access shall be accessible to and usable by persons with disabilities.
- 1133B.1.1.1.3 Recessed doormats. Recessed doormats shall be adequately anchored to prevent interference with wheelchair traffic.
- 1133B.1.1.1.4 Gates. All gates, including ticket gates, shall meet all applicable specifications for doors.

1133B.2 Doors.

**1133B.2.1 Type of lock or latch.** See Chapter 10, Section 1003.3.1.8.

1133B.2.2 Width and height. Every required exit doorway shall be of a size as to permit the installation of a door not less than 3 feet (914 mm) in width and not less than 6 feet 8 inches (2032 mm) in height.

When installed in exit doorways, exit doors shall be capable of opening at least 90 degrees and shall be so mounted that the clear width of the exitway is not less than 32 inches (813 mm). In computing the exit width the net dimension of the exitway shall be used.

1133B.2.3 Hinged doors. For hinged doors, the opening width shall be measured with the door positioned at an angle of 90 degrees from its closed position.

1133B.2.3.1 Pairs of doors. Where a pair of doors is utilized, at least one of the doors shall provide a clear, unobstructed opening width of 32 inches (813 mm) with the leaf positioned at an angle of 90 degrees from its closed position.

1133B.2.3.2 Automatic doors. When an automatic door operator is utilized to operate a pair of doors, at least one of the doors shall provide a clear, unobstructed opening width of 32 inches (813 mm) with the door positioned at an angle of 90 degrees from its closed position.

**EXCEPTIONS:** 1. The provisions of Section 1133B.2.3 shall not apply to existing buildings, except when otherwise required under conditions applicable to access for persons with disabilities. In existing buildings, the following shall apply:

Where the occupant load is less than 10, except Group I, Division 1 Occupancies, doorways may be 30 inches (762 mm) in clear width.

Where occupant load is greater than 10 and it is determined that compliance with Section 1133B.2.3 would create an unreasonable hardship, doorways may be 30 inches (762 mm) in clear width.

- 2. In existing buildings, the provisions of this section shall not apply when legal or physical constraints will not allow compliance with these building standards or equivalent facilitation without creating an unreasonable hardship. See Section 101.17.11, Item 5.
- 1133B.2.3.3 Revolving doors. Revolving doors shall not be used as a required entrance for persons with disabilities.

1133B.2.3.4 Turnstiles, rails and pedestrian controls. Where turnstiles and crowd control barriers are utilized in a facility for the purpose of providing fully controlled access, such as where an admission price is charged, a door or gate that is accessible to persons with disabilities shall be provided adjacent to each turnstile exit or entrance. This alternate passageway shall be maintained in an unlocked condition during business hours and the door or gate shall not activate a publicly audible alarm system. The door or gate may be latched where all gates are restricted and controlled by an attendant and a sign is posted stating, "all gates are restricted and controlled by an attendant." The accessible door or gate shall provide the same use pattern. Where posts, rails or other pedestrian controls are utilized to create crowd control aisles or lanes, a minimum of one lane shall be accessible and shall provide a minimum aisle width no less than indicated in Figure 11B-5E (a) and (b) with 32 inches (813 mm) of clear opening.

EXCEPTION: In existing buildings, Section 1133B.2.3 shall not apply when physical constraints or equivalent facilitation will not allow compliance with these building standards without creating an unreasonable hardship. See Section 101.17.11, Item 5.

1133B.2.4 Floor level at doors. Regardless of the occupant load, there shall be a floor or landing on each side of a door.

1133B.2.4.1 Thresholds. The floor or landing shall not be more than  $^{1}/_{2}$  inch (12.7 mm) lower than the threshold of the doorway. Change in level between  $^{1}/_{4}$  inch (6 mm) and  $^{1}/_{2}$  inch (12.7 mm) shall be beveled with a slope no greater than 1 unit vertical to 2 units horizontal (50% slope). Change in level greater than  $^{1}/_{2}$  inch (12.7 mm) shall be accomplished by means of a ramp.

NOTE: [For DSA/AC] See Section 1133B.5.1.

1133B.2.4.2 Maneuvering clearances at doors. Minimum maneuvering clearances at doors shall be as shown in Figure 11B-26A and 11B-26B. The floor or ground area within the required clearances shall be level and clear.

The level area shall have a length in the direction of door swing of at least 60 inches (1524 mm) and the length opposite the direction of door swing of 48 inches (1219 mm) as measured at right angles to the plane of the door in its closed position.

EXCEPTIONS: 1. The length opposite the direction of door swing shall be a minimum of 44 inches (1118 mm) where the door has no closer and approach to the door by a person in a wheelchair can be made from the latch side, or if the door has neither latch nor closer and approach can be made from the hinge side. See Figure 11B-26A and 11B-26B.

- 2. In Group R Occupancies, the level area shall have a length both in the direction of door swing and opposite the direction of door swing of 44 inches (1118 mm) as measured at right angles to the plane of the door in its closed position.
- 1133B.2.4.3 The width of the level area on the side to which the door swings shall extend 24 inches (610 mm) past the strike edge of the door for exterior doors and 18 inches (457 mm) past the strike edge for interior doors.

**NOTE:** Twenty-four inches (610 mm) is preferred for strike-side clearance.

- 1133B.2.4.4 The space between two consecutive door openings in a vestibule, serving other than a required exit stairway shall provide a minimum of 48 inches (1219 mm) of clear space from any door opening into such vestibule when the door is positioned at an angle of 90 degrees from its closed position. Doors in a series shall swing either in the same direction or away from the space between the doors.
- 1133B.2.4.5 Where a door required to be accessible by Section 1133B.1.1.1 is located in a recess or alcove where the distance from the face of the wall to the face of the door is greater than 8 inches, strike side clearances as prescribed in Section 1133B.2.4.3 shall be provided. See Figure 11B-33(a).
- 1133B.2.5 Closer—effort to operate doors. Maximum effort to operate doors shall not exceed 5 pounds (38 N) for exterior and interior doors, such pull or push effort being applied at right angles to hinged doors and at the center plane of sliding or folding doors. Compensating devices or automatic door operators may be utilized to meet the above standards. When fire doors are required, the maximum effort to operate the door may be increased to the minimum allowable by the appropriate administrative authority, not to exceed 15 pounds (66.72 N).
- 1133B.2.5.1 Door closer. If the door has a closer, then the sweep period of the closer shall be adjusted so that from an open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches (75 mm) from the latch, measured to the landing edge of the door.
- 1133B.2.5.2 Hand-activated door opening hardware shall be centered between 30 inches (762 mm) and 44 inches (1118 mm) above the floor. Latching and locking doors that are hand-activated and which are in a path of travel shall be operable with a single effort by lever-type hardware, panic bars, push-pull activating bars or other hardware designed to provide passage without requiring the ability to grasp the opening hardware. Locked exit doors shall operate as above in egress direction. Doors to individual hotel or motel units shall operate similarly, except that when a bolt and unlatching operation is key operated from corridor or exterior side of unit door, large bow keys 2 inches (51 mm) (full bow) or 1<sup>1</sup>/<sub>4</sub> inches (32 mm) (half bow) shall be provided in lieu of lever-type hardware on the corridor side. Separate deadlock activation on room side of corridor doors in hotels or motels shall have lever handle or large thumb turn on an easily reached location.
- 1133B.2.5.3 Recessed doors. Where the plane of the doorway is offset 8 or more inches (205 mm) from any obstruction within 18 inches (455 mm) measured laterally on the latch side, the door shall be provided with maneuvering clearance for front approach. See Figure 11B.33(a).
- 1133B.2.6 Smooth surface. The bottom 10 inches (254 mm) of all doors except automatic and sliding shall have a smooth, uninterrupted surface to allow the door to be opened by a wheelchair footrest without creating a trap or hazardous condition. Where narrow frame doors are used, a 10-inch (254 mm) high smooth

panel shall be installed on the push side of the door, which will allow the door to be opened by a wheelchair footrest without creating a trap or hazardous condition.

#### 1133B.3 Corridors, Hallways and Exterior Exit Balconies.

- 1133B.3.1 Corridor and hallway widths. Every corridor and hallway serving an occupant load of 10 or more shall not be less than 44 inches (1118 mm) in width. Corridors and hallways serving an occupant load of less than 10 shall not be less than 36 inches (914 mm) in width.
- 1133B.3.2 Corridors and hallways over 200 feet (60 960 mm). Corridors and hallways that are located on an accessible route and exceed 200 feet (60 960 mm) in length shall have a minimum clear width of 60 inches (1524 mm) clear width, then passing spaces at least 60 inches by 60 inches (1524 mm by 1524 mm) shall be located at reasonable intervals not to exceed 200 feet (60 960 mm). A "T" intersection of two corridors or walks is an acceptable passing place.
  - EXCEPTIONS: 1. In existing buildings, when the enforcing agency determines that compliance with any building standard under this section would create an unreasonable hardship, an exception to such building standard shall be granted when equivalent facilitation is provided.
  - 2. In existing buildings, the provisions of this section shall not apply when legal or physical constraints will not allow compliance with these building standards or equivalent facilitation without creating an unreasonable hardship. See Section 101.17.11, Item 5.

#### 1133B.4 Stairways.

#### 1133B.4.1 Handrails.

1133B.4.1.1 Required handrails. Stairways shall have handrails on each side, and every stairway required to be more than 88 inches (2235 mm) in width shall be provided with not less than one intermediate handrail for each 88 inches (2235 mm) of required width

Intermediate handrails shall be spaced approximately equally across with the entire width of the stairway.

- **EXCEPTIONS:** 1. Stairways serving one individual dwelling unit in Group R, Division 1 or 3 Occupancies may have one handrail, except that stairways open on one or both sides shall have handrails on the open side or sides.
- 2. Private stairways 30 inches (762 mm) or less in height may have handrails on one side only.

#### 1133B.4.2 Handrail configuration.

- 1133B.4.2.1 Handrails shall be 34 to 38 inches (864 to 965 mm) above the nosing of the treads.
- 1133B.4.2.2 Handrails shall extend a minimum of 12 inches (305 mm) beyond the top nosing and 12 inches (305 mm), plus the tread width, beyond the bottom nosing.
- 1133B.4.2.3 Ends shall be returned or shall terminate in newel posts or safety terminals.
- 1133B.4.2.4 Where the extension of the handrail in the direction of the stair run would create a hazard, the termination of the extension shall be made either rounded or returned smoothly to floor, wall or post. Where the stairs are continuous from landing to landing, the inner rail shall be continuous and need not extend out into the landing.
- **1133B.4.2.5** Handrails projecting from a wall shall have a space of  $1^{1}/2$  inches (38 mm) between the wall and the handrail.

Handrails may be located in a recess if the recess is a maximum of 3 inches (76 mm) deep and extends at least 18 inches (457 mm) above the top of the rail. Handrails shall not rotate in their fittings.

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#### 1133B.4.2.6 Handgrips.

1133B.4.2.6.1 The handgrip portion of handrails shall be not less than  $1^l/_4$  inches (32 mm) nor more than  $1^l/_2$  inches (38 mm) in cross-sectional nominal dimension or the shape shall provide an equivalent gripping surface. The handgrip portion of handrails shall have a smooth surface with no sharp corners. Gripping surfaces (top or sides) shall be uninterrupted by newel posts, other construction elements or obstructions. Any wall or other surface adjacent to the handrail shall be free of sharp or abrasive elements. Edges shall have a minimum radius of  $1/_8$  inch (3.2 mm).

EXCEPTIONS: 1. In existing buildings when the enforcing agency determines that compliance with any requirement under Section 1133B.4.2 would create an unreasonable hardship, an exception to the requirement for persons with disabilities may be granted when equivalent facilitation is provided.

2. These regulations shall not apply in existing buildings where legal or physical constraints will not allow compliance with these regulations or equivalent facilitation without creating an unreasonable hardship. See Section 101.17.11, Item 5.

1133B.4.2.6.2 The orientation of at least one handrail shall be in the direction of the run of the stair and perpendicular to the direction of the stair nosing, and shall not reduce the minimum required width of the stairs.

1133B.4.3 Tactile stair level identification signage. Tactile stair level identification signs that comply with 1117B.5, Item 1 shall be located at each floor level landing in all enclosed stairways in buildings two or more stories in height to identify the floor level. At exit discharge level, the sign shall include a raised five pointed star located to the left of the identifying floor level. The outside diameter of the star shall be the same as the height of the raised characters.

1133B.4.4 Striping for the visually impaired. The upper approach and the lower tread of each stair shall be marked by a strip of clearly contrasting color at least 2 inches (51 mm) wide placed parallel to and [not more than 1 inch (25.4 mm) from] the nose of the step or landing to alert the visually impaired. The strip shall be of material that is at least as slip resistant as the other treads of the stair.

Where stairways occur outside a building, the upper approach and all treads shall be marked by a strip of clearly contrasting color at least 2 inches (51 mm) wide and placed parallel to and not more than 1 inch (25.4 mm) from the nose of the step or landing to alert the visually impaired. The strip shall be of a material that is at least as slip resistant as the other treads of the stair. A painted strip shall be acceptable.

#### 1133B.4.5 Treads, nosing and risers.

1133B.4.5.1 Treads. All tread surfaces shall be slip resistant. Weather-exposed stairs and their approaches shall be designed so that water will not accumulate on the walking surfaces. Treads shall have a smooth, rounded or chamfered exposed edges, and no abrupt edges at the nosing (lower front edge).

1133B.4.5.2 Nosing. Nosing shall not project more than  $1^{1}/_{2}$  inch (38 mm) past the face of the riser below.

1133B.4.5.3 Open risers are not permitted. On any given flight of stairs, all steps shall have uniform riser height and uniform tread widths consistent with Section 1133B.4. Stair treads shall be no less than 11 inches (279 mm) deep, measured from riser to riser. See Figure 11B-35. Risers shall be sloped or the underside of the nosing shall have an angle not less than 60 degrees from the horizontal.

EXCEPTIONS: 1. In existing buildings, when the enforcing agency determines that compliance with any requirement under this section would create an unreasonable hardship, an exception to persons with

disabilities requirements may be granted when equivalent facilitation is provided.

2. These regulations shall not apply to existing buildings when legal or physical constraints will not allow compliance with these regulations or equivalent facilitation without creating an unreasonable hardship. See Section 101.17.11, Item 5.

#### 1133B.5 Ramps.

1133B.5.1 General. Ramps used as exits shall conform to the provisions of this section. Any path of travel shall be considered a ramp if its slope is greater than 1 foot (305 mm) rise in 20 feet (6096 mm) of horizontal run (5% gradient). The least possible slope shall be used for any ramp.

1133B.5.2 Width. The width of ramps shall be as required for stairways and exits.

1133B.5.2.1 Widths as for exits. The width of ramps shall be as required for stairways and exits. Pedestrian ramps shall have a minimum width of 48 inches (1219 mm).

1133B.5.2.2 Entrance and special occupancy. Pedestrian ramps serving entrances to buildings where the ramp is the only exit discharge path and serves an occupant load of 300 or more shall have a minimum clear width of 60 inches (1524 mm). Ramps serving Group R Occupancies may be 36 inches (914 mm) clear width when the occupant load is 50 or less.

1133B.5.3 Slope. The maximum slope of a ramp that serves any exit way, provides access for persons with physical disabilities or is in the path of travel shall be 1-foot (305 mm) rise in 12 feet (3658 mm) of horizontal run (8.3% gradient).

1133B.5.3.1 The cross slope of ramp surfaces shall be no greater than 1 unit vertical in 50 units horizontal (2% slope).

1133B.5.4 Landings. Level ramp landings shall be installed as follows:

1133B.5.4.1 Location of landings. Level ramp landings shall be provided at the top and bottom of each ramp. Intermediate landings shall be provided at intervals not exceeding 30 inches (762 mm) of vertical rise and at each change of direction. Landings are not considered in determining the maximum horizontal distance of each ramp. Landing shall be level as specified in the definition of "level area" in Section 1102B.

**NOTE:** Examples of ramp dimensions are as follows:

	MAXIMUM RISE (inches)	MAXIMUM HORIZONTAL PROJECTION (feet)
SLOPE	(× 25.4 for mm)	(× 304.8 for mm)
1:12	30	30
1:16	30	40
1:20	30	50
1:15	30	37.5

1133B.5.4.2 Size of top landings. Top landings shall be not less than 60 inches (1524 mm) wide and shall have a length of not less than 60 inches (1524 mm) in the direction of ramp run.

1133B.5.4.3 Encroachment of doors. Doors in any position shall not reduce the minimum dimension of the landing to less than 42 inches (1067 mm) and shall not reduce the required width by more than 3 inches (76 mm) when fully open.

1133B.5.4.4 Strike edge extension. The width of the landing shall extend 24 inches (610 mm) past the strike edge of any door or gate for exterior ramps and 18 inches (457 mm) past the strike edge for interior ramps.

1133B.5.4.5 Landing width. At bottom and intermediate landings, the width shall be at least the same as required for the ramps.

- 1133B.5.4.6 Change of direction. Intermediate and bottom landings at a change of direction in excess of 30 degrees shall have a dimension in the direction of ramp run of not less than 72 inches (1829 mm) to accommodate the handrail extension.
- 1133B.5.4.7 Other intermediate landings. Other intermediate landings shall have a dimension in the direction of ramp run of not less than 60 inches (1524 mm).
- 1133B.5.4.8 For existing ramps or ramps not covered by Section 1133B.5.4.1, landings shall be provided as set forth in Section 1133B.5.4.1.
- 1133B.5.4.9 Hazards. Required ramps shall have a curb at least 2 inches (51 mm) high, or a wheel guide rail 2 to 4 inches (51 to 102 mm) high on each side of the ramp landing that has a vertical drop exceeding 4 inches (102 mm) and that is not bounded by a wall or fence.

#### 1133B.5.5 Handrails for ramps.

1133B.5.5.1 Handrails are required on ramps that provide access if slope exceeds 1 foot (305 mm) rise in 20 feet (6096 mm) of horizontal run (5% gradient), except that at exterior door landings, handrails are not required on ramps less than 6 inches (152 mm) rise or 72 inches (1829 mm) in length. Handrails shall be placed on each side of each ramp, shall be continuous the full length of the ramp, shall be 34 to 38 inches (864 to 965 mm) above the ramp surface, shall extend a minimum of 1 foot (305 mm) beyond the top and bottom of the ramp and the ends shall be returned. Handrails projecting from a wall shall have a space of not less than  $1^{1}/_{2}$  inches (38 mm) between the wall and the handrail. Handrails may be located in a recess if the recess is a maximum of 3 inches (76 mm) deep and extends at least 18 inches (457 mm) above the top of the rail. The grip portion shall not be less than  $1^{1}/4$ inches (32 mm) nor more than  $1^{1}/_{2}$  inches (38 mm), or the shape shall provide an equivalent gripping surface and all surfaces shall be smooth with no sharp corners. Handrails shall not rotate within their fittings. Any wall or other surface adjacent to the handrail shall be free of sharp or abrasive elements. Edges shall have a minimum radius of 1/8 inch (3 mm).

**EXCEPTIONS:** 1. Handrails at ramps immediately adjacent to fixed seating in assembly areas are not required.

- 2. Ramps that require handrails and that serve one individual dwelling unit in Group R, Division 1 or 3 Occupancies may have one handrail except that such ramps open on one or both sides shall have handrails provided on the open side or sides.
  - 3. Curb ramps do not require handrails.
- 1133B.5.5.1.1 Ramp handrails. Where the extension of the handrail in the direction of the ramp run would create a hazard, the extensions on handrails for ramps shall comply with Section 1133B.4.2.4, or the extension on the handrail may be turned 90 degrees to the run of the ramp.
- 1133B.5.6 Wheel guides. Where the ramp surface is not bounded by a wall or fence and the ramp exceeds 10 feet (3048 mm) in length, the ramp shall comply with one of the following requirements.
- 1133B.5.6.1 A guide curb a minimum of 2 inches (51 mm) in height shall be provided at each side of the ramp; or
- 1133B.5.6.2 A wheel guide rail shall be provided, centered 3 inches (76 mm) plus or minus 1 inch (25 mm) above the surface of the ramp.
- 1133B.5.7 Ramps more than 30 inches (762 mm) above the adjacent ground shall be provided with guardrails as required by this section. Such guardrails shall be continuous from the top of the ramp to the bottom of the ramp.

- 1133B.5.7.1 Guardrails. Ramps and landings open on one or both sides shall have guardrails as required by this section.
- 1133B.5.7.2 Where required. Unenclosed floor and roof openings, open and glazed sides of stairways, aisles, landings and ramps, balconies or porches that are more than 30 inches (762 mm) above grade or floor below, and roofs used for other than service of the building shall be protected by a guardrail. Guardrails shall be provided at the ends of aisles where they terminate at a fascia of boxes, balconies and galleries.

**EXCEPTION:** Guardrails need not be provided at the following locations:

- 1. On the loading side of loading docks.
- 2. On the auditorium side of a stage, raised platforms and other raised floor areas such as runways, ramps and side stages used for entertainmentor presentation. Along the side of an elevated-walking surface when used for the normal functioning of special lighting or for access and use of other special equipment. At vertical openings in the performance area of stages.
  - 3. Along vehicle service pits not accessible to the public.

1133B.5.7.3 Height. The top of guardrails shall not be less than 42 inches (1067 mm) in height.

**EXCEPTIONS:** 1. The top of guardrails for Group R, Division 3 and Group U, Division 1 Occupancies and interior guardrails within individual dwelling units, Group R, Division 3 congregate residences and guest rooms of Group R, Division 1 Occupancies may be 36 inches (914 mm) in height.

- 2. The top guardrails on a balcony immediately in front of the first rowoffixed seats and that are not at the end of an aisle may be 26 inches (660 mm) in height.
- 3. The top of guardrails for stairways, exclusive of their landings, may have a height as specified in Sections 1123A.6.1 and 1133B.4.1.1 for handrails.

Where an elevation change of 30 inches (762 mm) or less occurs between an aisle parallel to the seats (cross aisle) and the adjacent floor or grade below, guardrails not less than 26 inches (660 mm) above the aisle floor shall be provided.

**EXCEPTION:** Where the backs of seats on the front of the cross aisle project 24 inches (610 mm) or more above the adjacent floor of the aisle, a guardrail need not be provided.

The top of guardrails at the ends of aisles terminating at the fascia of boxes, balconies and galleries shall extend for the width of the aisle and be no closer than 42 inches (1067 mm) to the closest surface of the aisle where there are steps and 36 inches (914 mm) otherwise.

1133B.5.7.4 Openings. Open guardrails shall have intermediate rails or an ornamental pattern such that a sphere 4 inches (102 mm) in diameter cannot pass through.

**EXCEPTIONS:** 1. The open space between the intermediate rails or ornamental pattern of guardrails in areas of commercial and industrial-type occupancies that are not accessible to the public may be such that a sphere 12 inches (305 mm) in diameter cannot pass through.

2. The triangular openings formed by the riser, tread and bottom element of a guardrail at the open side of a stairway may be of such size that a sphere 6 inches (152 mm) in diameter cannot pass through.

For guardrail requirements at grandstands, bleachers or other elevated seating facilities, see Section 1133B.5.7.5.

1133B.5.7.5 Perimeter guardrails. Perimeter guardrails, enclosing walls or fencing shall be provided for all portions of elevated seating facilities that are more than 30 inches (762 mm) above grade or the floor. Construction of guardrails shall comply with the requriements of Section 1133B.5.7 and Table 16-B. Guardrails shall be 42 inches (1067 mm) in height measured vertically above the leading edge of the tread adjacent walking surface or adjacent seatboards.

**EXCEPTION:** Guardrails at the front of the front row of seats that are not located at the end of an aisle and where there is no cross aisle

may have a height of 26 inches (660 mm) and need not meet the 4 inch maximum (102 mm) spacing specified in Section 1133B.5.7; however, a midrail shall be installed.

The open vertical space between footboards and seats shall not exceed 9 inches (229 mm) when footboards are more than 30 inches (762 mm) above grade.

#### 1133B.6 Aisles.

1133B.6.1 General. Every portion of every building in which are installed seats, tables, merchandise, equipment or similar materials shall be provided with aisles leading to an exit.

1133B.6.2 Width. Every aisle shall not be less than 36 inches (914 mm) wide if serving only one side, and not less than 44 inches (1118 mm) wide if serving both sides.

#### 1133B.7 Walks and Sidewalks.

1133B.7.1 Continuous surface. Walks and sidewalks subject to these regulations shall have a continuous common surface, not interrupted by steps or by abrupt changes in level exceeding  $^{1}/_{2}$  inch (12.7 mm) (see Section 1133B.7.4), and shall be a minimum of 48 inches (1219 mm) in width. Surfaces shall be slip-resistant as follows:

1133B.7.1.1 Slopes less than 6 percent. Surfaces with a slope of less than 6 percent gradient shall be at least as slip-resistant as that described as a medium salted finish.

1133B.7.1.2 Slopes 6 percent or greater. Surfaces with a slope of 6 percent gradient shall be slip-resistant.

1133B.7.1.3 Surface cross slopes. Surface cross slopes shall not exceed  $^{1}/_{4}$  inch (6 mm) per foot except when the enforcing agency finds that due to local conditions it creates an unreasonable hardship, the cross slope shall be increased to a maximum of  $^{1}/_{2}$  inch (12.7 mm) per foot for distances not to exceed 20 feet (6096 mm) (4.16% gradient).

EXCEPTION: When, because of right-of-way restrictions, natural barriers or other existing conditions, the enforcing agency determines that compliance with the 48-inch (1219 mm) clear sidewalk width would create an unreasonable hardship, the clear width may be reduced to 36 inches (914 mm).

1133B.7.2 Gratings. Walks, sidewalks and pedestrian ways shall be free of gratings whenever possible. For gratings located in the surface of any of these areas, grid openings in gratings shall be limited to  $^{1}/_{2}$  inch (12.7 mm) in the direction of traffic flow.

**EXCEPTIONS:** 1. Where the enforcing agency determines that compliance with this section would create an unreasonable hardship, an exception may be granted when equivalent facilitation is provided.

2. This section shall not apply in those conditions where, due to legal or physical constraints, the site of the project will not allow compliance with these building standards or equivalent facilitation without creating an unreasonable hardship. See Section 101.17.11, Item 5.

1133B.7.3 Five percent gradient. When the slope in the direction of travel of any walk exceeds 1 unit vertical to 20 units horizontal (5% gradient), it shall comply with the provisions of Section 1133B.5.

1133B.7.4 Changes in level. Abrupt changes in level along any accessible route shall not exceed  $^{1}/_{2}$  inch (12.7 mm). When changes in level do occur, they shall be beveled with a slope no greater than 1 unit vertical to 2 units horizontal (50%), except that level changes not exceeding  $^{1}/_{4}$  inch (6 mm) may be vertical.

When changes in levels greater than  $^{1}/_{2}$  inch (12.7 mm) are necessary, they shall comply with the requirements for curb ramps.

NOTE: See Section 1127B.5.

1133B.7.5 Level areas. Walks shall be provided with a level area not less than 60 inches by 60 inches (1524 mm by 1524 mm) at a door or gate that swings toward the walk, and not less than 48 inches wide by 44 inches (1219 mm by 1118 mm) deep at a door or gate that swings away from the walk. Such walks shall extend 24 inches (610 mm) to the side of the strike edge of a door or gate that swings toward the walk. (For example, see Figure 11B-26B.)

1133B.7.6 Walks with continuous gradients. All walks with continuous gradients shall have level areas at least 5 feet (1524 mm) in length at intervals of at least every 400 feet (121 920 mm).

#### 1133B.8 Hazards.

1133B.8.1 Warning curbs. Abrupt changes in level, except between a walk or sidewalk and an adjacent street or driveway, exceeding 4 inches (102 mm) in a vertical dimension, such as at planters or fountains located in or adjacent to walks, sidewalks or other pedestrian ways, shall be identified by curbs projecting at least 6 inches (152 mm) in height above the walk or sidewalk surface to warn the blind of a potential drop off.

When a guardrail or handrail is provided, no curb is required when a guide rail is provided centered 3 inches (76 mm) plus or minus 1 inch (25 mm) above the surface of the walk or sidewalk, the walk is 5 percent or less gradient or no adjacent hazard exists.

1133B.8.2 Overhanging obstructions. Any obstruction that overhangs a pedestrian's way shall be a minimum of 80 inches (2032 mm) above the walking surface as measured from the bottom of the obstruction. Where a guy support is used parallel to a path of travel, including, but not limited to, sidewalks, a guy brace, sidewalk guy or similar device shall be used to prevent an overhanging obstruction as defined (see Figure 11B-28).

Hazards such as drop-offs adjacent to walk ways or overhanging obstructions can be dangerous to persons with sight problems. This section addresses these situations.

1133B.8.3 Detectable warnings at transit boarding platforms. (See Section 1127B.5 #8). Transit boarding platforms shall have a detectable warning texture extending the full length of the loading area. This detectable warning texture shall have the following features:

Width 24 to 36 inches (610 mm to 914 mm) placed at the edge of the drop-off or safe area.

Durable, slip-resistant material having a surface texture composed of raised, truncated domes in a staggered pattern with a diameter of nominal 0.9 inch (22.9 mm) at the base tapering to 0.45 inch (11.4 mm) at the top, a height of nominal 0.2 inch (5.08 mm), and a center-to-center spacing of nominal 2.35 inches (59.7 mm) in compliance with Figure 11B-23A. "Nominal" as used here shall be in accordance with California State Referenced Standards Code Sections 12-11A and B-102. The detectable warning shall contrast visually with adjoining surfaces, either light on dark or dark on light. The material used to provide contrast shall be an integral part of the walking surface. Warning surfaces shall differ from adjoining walking surfaces in resiliency or sound on cane contact. This surface shall be reserved for warning.

Color yellow conforming to federal Color No. 33538, as shown in Table IV of Standard No. 595B. Where the color value contrast between the yellow warning and the main walking surface is less than 70 percent, a 1 inch-wide (25 mm) black strip shall separate the yellow warning from the main walking surface. Contrast shall be determined by:

 $Contrast = [(B1-B2/B1)] \times 100$  percent where B1 = light reflectance value (LRV) of the lighter area and B2 = light reflectance value (LRV) of the darker area.

Only approved DSA/AC detectable warning products and directional surfaces shall be installed as provided in the California

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Code of Regulations (CCR), Title 24, Part 1, Articles 2, 3 and 4. Refer to CCR Title 24, Part 12, Chapter 12-11A and B, for building and facility access specifications for product approval for detectable warning products and directional surfaces.

NOTE: Detectable warning products and directional surfaces installed after January 1, 2001, shall be evaluated by an independent entity, selected by the Department of General Services, Division of the State Architect-Access Compliance, for all occupancies, including transportation and other outdoor environments, except that when products and surfaces are for use in residential housing evaluation shall be in consultation with the Department of Housing and Community Development. See Government Code Section 4460.

1133B.8.4 Detectable directional texture at boarding platforms. At transit boarding platforms, the pedestrian access shall be identified with a detectable directional texture. This detectable directional texture shall comply with Figure 11B-23B and shall be 0.1 inch (2.54 mm) in height that tapers off to 0.04 inch (1.02 mm), with bars raised 0.2 inch (5.08 mm) from the surface. The raised bars shall be 1.3 inches (33.02 mm) wide and 3 inches (76 mm) from center-to-center of each bar. This surface shall differ from adjoining walking surfaces in resiliency or sound on cane contact. The color of the directional texture shall comply with Section 1133B.8.3. This surface will be placed directly behind the yellow detectable warning texture specified in Section 1133B.8.3, aligning with all doors of the transit vehicles, where passengers will embark. The width of the directional texture shall be equal to the width of the transit vehicle's door opening. The depth of the texture shall not be less than 36 inches (914 mm).

Only approved DSA/AC detectable warning products and directional surfaces shall be installed as provided in the California Code of Regulations (CCR), Title 24, Part 1, Articles 2, 3 and 4. Refer to CCR Title 24, Part 12, Chapter 12-11A and B, for building and facility access specifications for product approval for detectable warning products and directional surfaces.

NOTE: Detectable warning products and directional surfaces installed after January 1, 2001, shall be evaluated by an independent entity, selected by the Department of General Services, Division of the State Architect-Access Compliance, for all occupancies, including transportation and other outdoor environments, except that when products and surfaces are for use in residential housing evaluation shall be in consultation with the Department of Housing and Community Development. See Government Code Section 4460.

1133B.8.5 Detectable warnings at hazardous vehicular areas. If a walk crosses or adjoins a vehicular way, and the walking sur-

faces are not separated by curbs, railings or other elements between the pedestrian areas and vehicular areas, the boundary between the areas shall be defined by a continuous detectable warning which is 36 inches (914 mm) wide, complying with Sections 1133B.8.3 through 1133B.8.5.

Only approved DSA/AC detectable warning products and directional surfaces shall be installed as provided in the California Code of Regulations (CCR), Title 24, Part 1, Articles 2, 3 and 4. Refer to CCR Title 24, Part 12, Chapter 12-11A and B, for building and facility access specifications for product approval for detectable warning products and directional surfaces.

NOTE: Detectable warning products and directional surfaces installed after January 1, 2001, shall be evaluated by an independent entity, selected by the Department of General Services, Division of the State Architect-Access Compliance, for all occupancies, including transportation and other outdoor environments, except that when products and surfaces are for use in residential housing evaluation shall be in consultation with the Department of Housing and Community Development. See Government Code Section 4460.

#### 1133B.8.6 Protruding objects.

1133B.8.6.1 General. Objects projecting from walls (for example, telephones) with their leading edges between 27 inches (686 mm) and 80 inches (2032 mm) above the finished floor shall protrude no more than 4 inches (102 mm) into walks, halls, corridors, passageways or aisles. Objects mounted with their leading edges at or below 27 inches (686 mm) above the finished floor may protrude any amount. Free-standing objects mounted on posts or pylons may overhang 12 inches (305 mm) maximum from 27 inches (686 mm) to 80 inches (2032 mm) above the ground or finished floor. Protruding objects shall not reduce the clear width of an accessible route or maneuvering space. See Figure 11B-7A.

1133B.8.6.2 Head room. Walks, halls, corridors, passageways, aisles or other circulation spaces shall have 80 inches (2032 mm) minimum clear head room. See Figure 11B-7A.

1133B.8.6.3 Free-standing signs. Wherever signs mounted on posts or pylons protrude from the posts or pylons and the bottom edge of the sign is at less than 80 inches (2032 mm) above the finished floor or ground level, the edges of such signs shall be rounded or eased and the corners shall have a minimum radius of 0.125 inches.

#### Division IV—ACCESSIBILITY FOR EXISTING BUILDINGS

Note: This division replaces Appendix Chapter 11, Division II, for use in California.

### SECTION 1134B — ACCESSIBILITY FOR EXISTING BUILDINGS

1134B.1 Scope. The provisions of this division apply to renovation, structural repair, alteration and additions to existing buildings, including those identified as historic buildings. This division identifies minimum standards for removing architectural barriers, and providing and maintaining accessibility to existing buildings and their related facilities.

1134B.2 General. All existing buildings and facilities, when alterations, structural repairs or additions are made to such buildings or facilities, shall comply with all provisions of Division I, New Buildings, except as modified by this division. These requirements shall apply only to the area of specific alteration, structural repair or addition and shall include those areas listed below:

1134B.2.1 A primary entrance to the building or facility and the primary path of travel to the specific area of alteration, structural repair or addition, and sanitary facilities, drinking fountains, signs and public telephones serving the area.

EXCEPTIONS: 1. When the total construction cost of alterations, structural repairs or additions does not exceed a valuation threshold of \$50,000, based on January 1981, "ENR US20 Cities" average construction cost index of 3372.02 (Engineering News Record, McGraw Hill Publishing Company), and the enforcing agency finds that compliance with this code creates an unreasonable hardship, compliance shall be limited to the actual work of the project. The enforcing agency shall annually update the valuation threshold to a current amount based on the increase in the index since the last figure used. (For example, the January 2000 amount is \$90.895.07.) For purposes of this exception, an unreasonable hardship exists where the cost of providing an accessible entrance, path of travel, sanitary facilities, public phones and drinking fountains, is disproportionate to the cost of the project; that is, where it exceeds 20 percent of the cost of the project without these features. Where the cost of alterations necessary to make these features fully accessible is disproportionate, access shall be provided to the extent that it can be without incurring disproportionate cost. In choosing which accessible elements to provide, priority should be given to those elements that will provide the greatest access in the following order:

- 1.1 An accessible entrance,
- 1.2 An accessible route to the altered area,
- 1.3 At least one accessible restroom for each sex,
- 1.4 Accessible telephones,
- 1.5 Accessible drinking fountains, and
- 1.6 When possible, additional accessible elements such as parking, storage and alarms.

The obligation to provide access may not be evaded by performing a series of small alterations to the area served by a single path of travel if those alterations could have been performed as a single undertaking. If an area has been altered without providing an accessible path of travel to that area, and subsequent alterations of that area or a different area on the same path of travel are undertaken within three years of the original alteration, the total cost of alterations to the areas on that path of travel during the preceding three-year period shall be considered in determining whether the cost of making that path of travel accessible is disproportionate. Only alterations undertaken after January 26, 1992, shall be considered in determining if the cost of providing an accessible path of travel is disproportionate to the overall cost of the alterations

2. Certain types of privately funded, multistory buildings and facilities were formerly exempt from accessibility requirements above and below the first floor under this code, but as of the effective date of this regulation are no longer exempt due to more restrictive provisions in the federal Americans with Disabilities Act. In alteration projects involving buildings and facilities previously approved and built with-

out elevators, areas above and below the ground floor are subject to the 20 percent disproportionality provisions described in Exception 1, above, even if the value of the project exceeds the valuation threshold in Exception 1. The types of buildings and facilities are:

- 2.1 Office buildings and passenger vehicle service stations of three stories or more and 3,000 or more square feet (279 m²) per floor.
- 2.2 Offices of physicians and surgeons.
- 2.3 Shopping centers.
- 2.4 Other buildings and facilities three stories or more and more than 3,000 square feet (279 m²) per floor if a reasonable portion of services sought and used by the public is available on the accessible level.

**NOTE:** For the general privately funded multistory building exception applicable to new construction and alterations, see Section 1103B.1, Exception 3.

- 3. Alterations, structural repairs or additions consisting of one or more of the following shall be limited to the actual work of the project:
  - 3.1 Altering one building entrance to meet accessibility require-
  - 3.2 Altering one existing toilet facility to meet accessibility requirements.
  - 3.3 Altering existing elevators to meet accessibility requirements
  - 3.4 Altering existing steps to meet accessibility requirements.
  - 3.5 Altering existing handrails to meet accessibility requirements
  - 3.6 Alteration solely for the purpose of removing barriers undertaken pursuant to the requirements of Sections 36.402 and 36.404 through 36.406 of Title III of the Department of Justice regulations promulgated pursuant to the Americans with Disabilities A ct (Public Law 101-336, 28 C.F.R. Section 36.402, 28 C.F.R. Section 36.404 Section 36.405, and 28 C.F.R. 36.406) or the accessibility requirements of this code as those requirements or regulations now exist or are hereafter amended, including the following:
    - 3.6.1 Installing ramps
    - 3.6.2 Making curb cuts in sidewalks and entrances
    - 3.6.3 Repositioning shelves
    - 3.6.4 Rearranging tables, chairs, vending machines, display racks, and other furniture
    - 3.6.5 Repositioning telephones
    - 3.6.6 Adding raised markings on elevator control buttons
    - 3.6.7 Installing flashing alarm lights
    - 3.6.8 Widening doors
    - 3.6.9 Installing offset hinges to widen doorways
    - 3.6.10 Eliminating a turnstile or providing an alternative accessible path
    - 3.6.11 Installing accessible door hardware
    - 3.6.12 Installing grab bars in toilet stalls
    - 3.6.13 Rearranging to ilet partitions to increase maneuv ering space
    - 3.6.14 Insulating lavatory pipes under sinks to prevent burns
    - 3.6.15 Installing a raised toilet seat
    - 3.6.16 Installing a full-length bathroom mirror
    - 3.6.17 Repositioning the paper towel dispenser in a bath-
    - 3.6.18 Creating designated accessible parking spaces
    - 3.6.19 Installing an accessible paper cup dispenser at an existing inaccessible water fountain
    - 3.6.20 Removing high-pile, low-density carpeting
    - 3.6.21 Installing vehicle hand controls.

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3.7 Altering existing parking lots by resurfacing and/or restriping.

4. Projects which consist only of heating, ventilation, air conditioning, reroofing, electrical work not involving placement of switches and receptacles, cosmetic work that does not affect items regulated by this code, such as painting, equipment not considered to be a part of the architecture of the building or area, such as computer terminals, office equipment, etc., are not considered alteration projects for the purposes of accessibility for persons with disabilities and shall not be subject to this code. For the purposes of this section, the term "construction cost" does not include building permit fees or discretionary permit fees.

**NOTE:** The only purpose of this exception is to exclude projects from activating the provisions of this section. The exceptions are not intended to relieve projects from complying with other applicable provisions of this code (e.g., replacement of carpet does not activate the provisions of this section; however, it still must comply with Section 1124B.3).

1134B.2.2 Where it is technically infeasible in the area of an alteration to make existing restroom facilities code compliant and to install separate sanitary facilities for each sex, then the installation of at least one unisex toilet/bathroom per floor being altered, located in the same area as existing toilet facilities, will be permitted. Such a facility shall meet the requirements of Section 1115B.7.2.

1134B.3 General Accessibility for Entrances, Exits and Paths of Travel.

1134B.3.1 Automatic doors. When an automatic door operator is utilized to operate a pair of doors, at least one of the doors shall

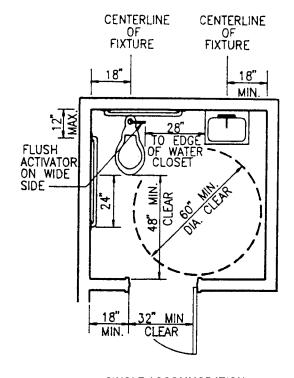
provide a clear, unobstructed opening width of 32 inches (813 mm) with the door positioned at an angle of 90 degrees from its closed position.

**EXCEPTIONS:** 1. In existing buildings the following shall apply:

- 1.1 Where the occupant load is less than 10, except Group I, Division 1 Occupancies, doorways may be 30 inches (762 mm) in clear width.
- 1.2 Where occupant load is greater than 10 and it is determined that compliance with Section 1132A.2.1 would create an unreasonable hardship, doorways may be 30 inches (762 mm) in clear width.
- 2. In existing buildings, the provisions of this section shall not apply when legal or physical constraints will not allow compliance with these building standards or equivalent facilitation without creating an unreasonable hardship. See Section 101.17.11, Item 5.

#### SECTION 1135B — HISTORIC PRESERVATION — SPECIAL STANDARDS OF ACCESSIBILITY FOR BUILDINGS WITH HISTORICAL SIGNIFICANCE

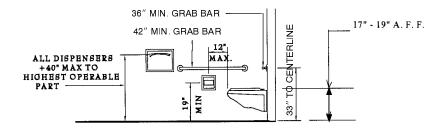
1135B.1 General. Qualified historical buildings shall comply with the State Historical Building Code, Part 8, Title 24, of the California Code of Regulations as printed in Part 2, Chapter 34, Division II.



CENTERLINE OF **FIXTURE** FLUSH ACTIVATOR ON WIDE SIDE 18 MIN TO EDGE OF WATER CLOSET CLEAR **4**8 Z Z 60" MIN 18" MIN MIN. CLEAR

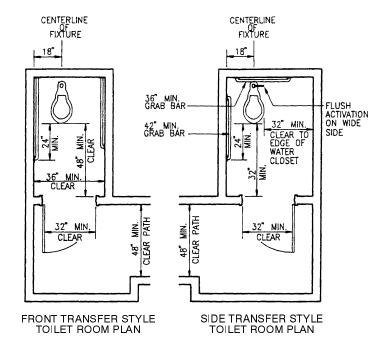
SINGLE-ACCOMMODATION TOILET FACILITY

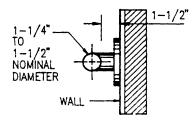
ACCESSIBLE WATER CLOSET COMPARTMENT WITHIN A MULTIPLE-ACCOMMODATION TOILET FACILITY



SIDE ELEVATION

THIS DIAGRAMILLUSTRATES THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND IS INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

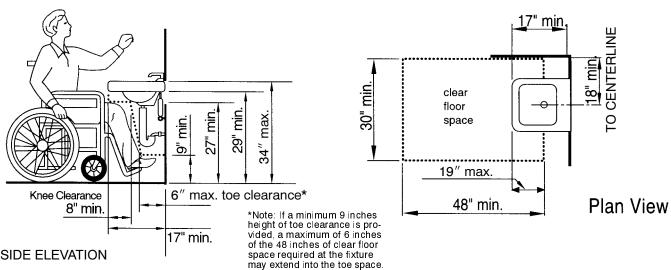




SECTION THROUGH TYPICAL GRAB BAR

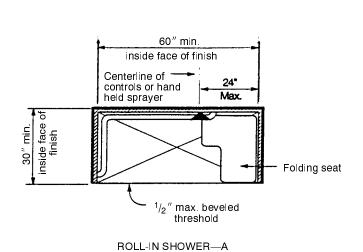
THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

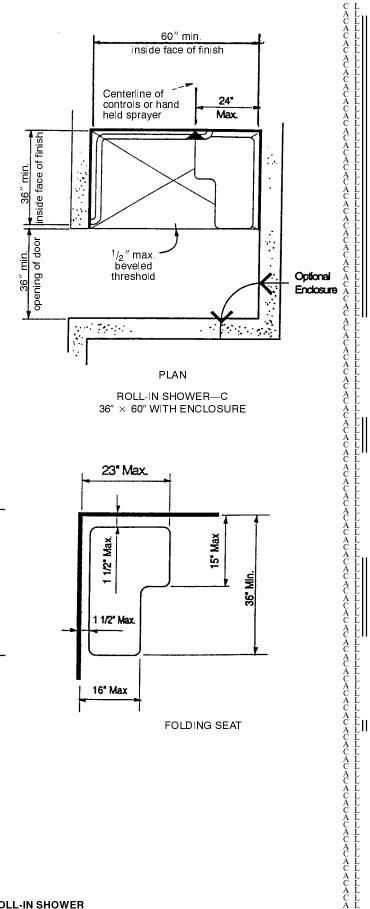
#### FIGURE 11B-1C—EQUIVALENT FACILITATION FOR EXISTING BUILDINGS ONLY

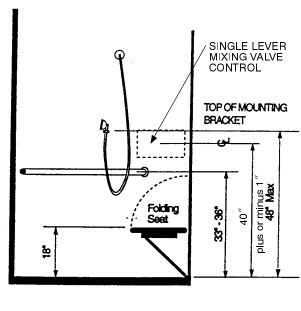


THIS DIAGRAM ILLUSTRATES THE SPECIFIC REQUIREMENTS OF THE REGULATIONS AND IS INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

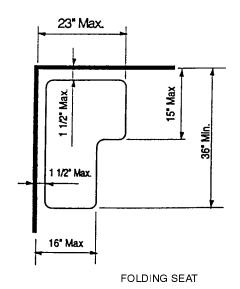
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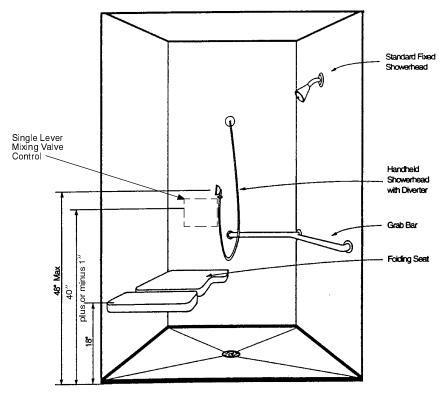


ELEVATION AT SHOWER TYPICAL FOR A-C

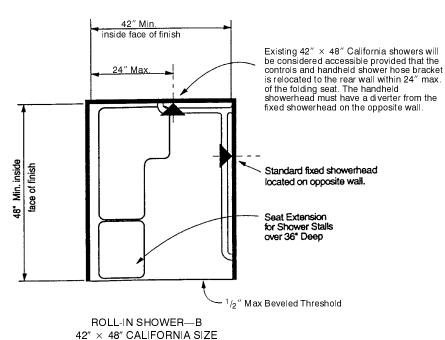


ROLL-IN SHOWER—C  $36" \times 60"$  WITH ENCLOSURE

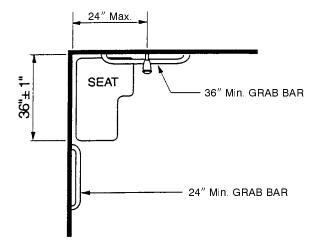
FIGURE 11B-2A—ROLL-IN SHOWER



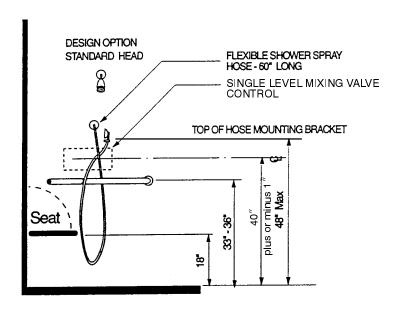
PERSPECTIVE OF ROLL-IN SHOWER—B  $42'' \times 48''$  CALIFORNIA SIZE



12 × 46 CALIFORINIA SIZE

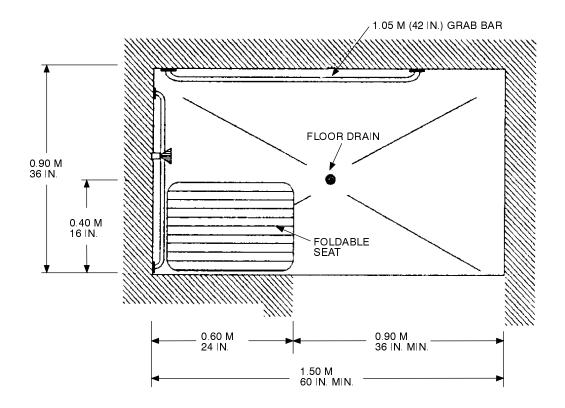






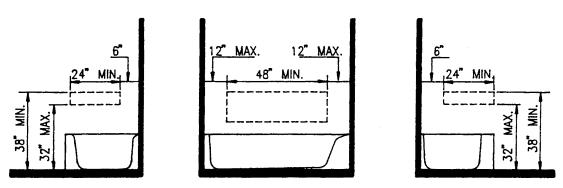
**ELEVATION** 

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION



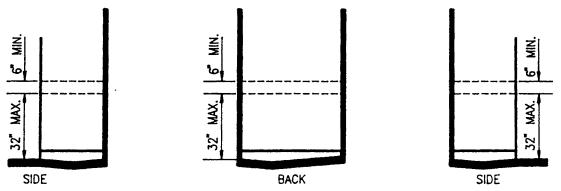


#### (a) WATER CLOSET IN ADAPTABLE BATHROOMS



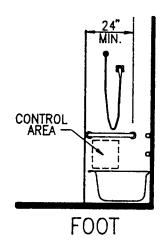
NOTE: THE AREA OUTLINED IN DASHED LINES REPRESENT LOCATIONS FOR FUTURE INSTALATION OF GRAB BARS FOR TYP. FIXTURE CONFIGURATIONS

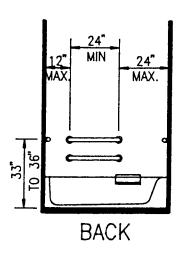
#### (b) LOCATION OF GRAB BAR REINFORCEMENTS FOR ADAPTABLE BATHTUBS

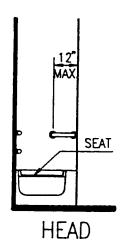


NOTE: THE AREA OUTLINED IN DASHED LINES REPRESENT LOCATION OF FUTURE INSTALLATION OF GRAB BARS

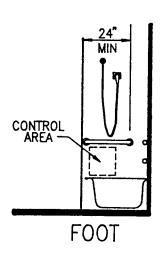
#### (c) LOCATION OF GRAB BAR REINFORCEMENTS FOR ADAPTABLE SHOWERS

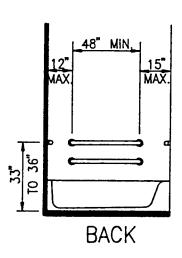


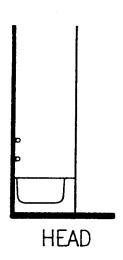




(a) WITH SEAT IN TUB







(b) WITH SEAT AT HEAD OF TUB



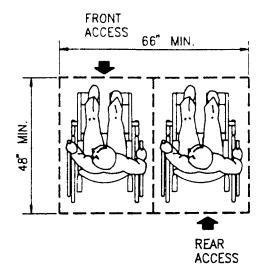
#### FIGURE 11B-14A—INTERNATIONAL TTY SYMBOL



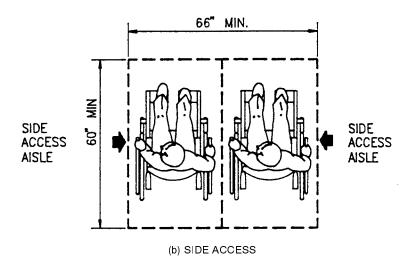
FIGURE 11B-14B—VOLUME CONTROL TELEPHONES



FIGURE 11B-14C—INTERNATIONAL SYMBOL OF ACCESS FOR HEARING LOSS

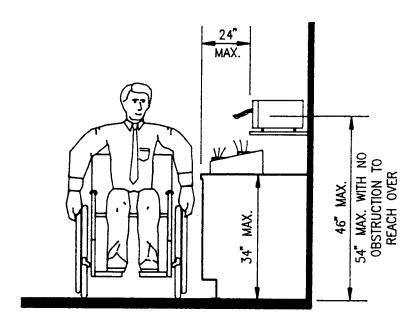


(a) FORWARD OR REAR ACCESS

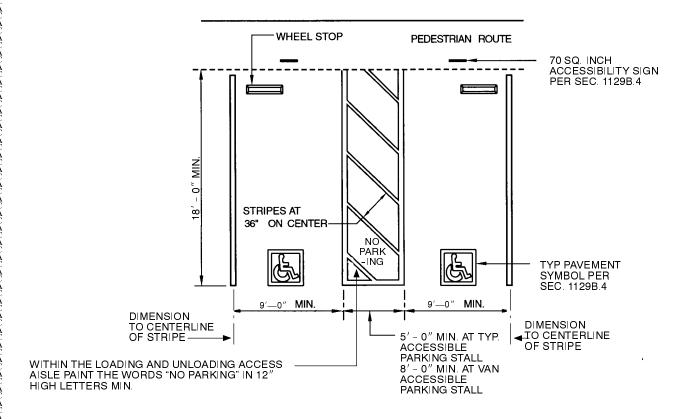


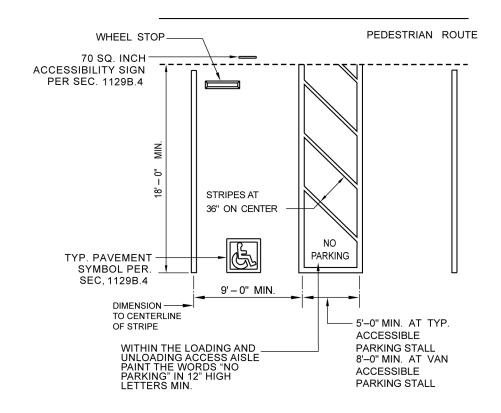
NOTE: EACH INDIVIDUAL SEATING POSITION HAS AN EGRESS ROUTE WHICH DOES NOT CROSS THROUGH OTHER SEATING POSITIONS.

FIGURE 11B-16—FOOD SERVICE LINES



THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.





#### FIGURE 11B-18B—SINGLE PARKING STALLS

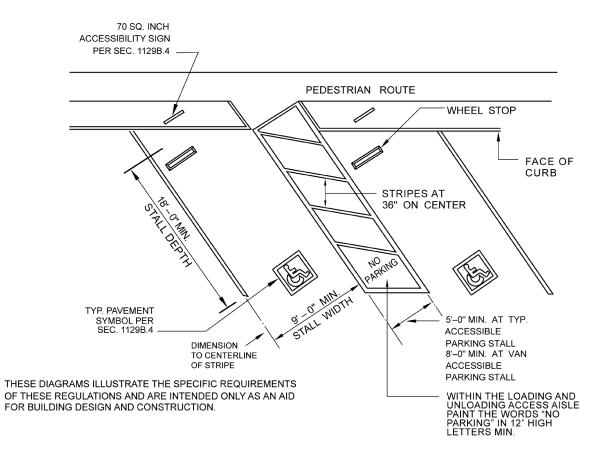
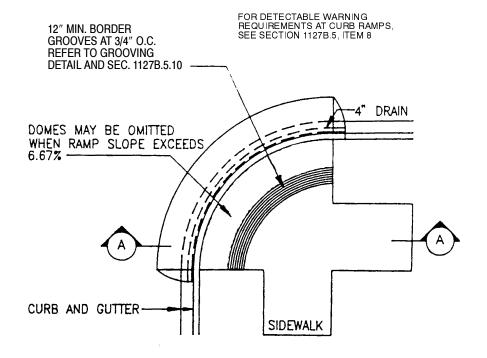
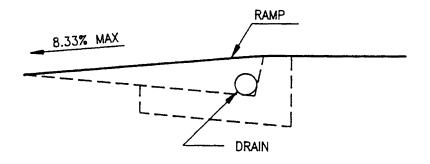
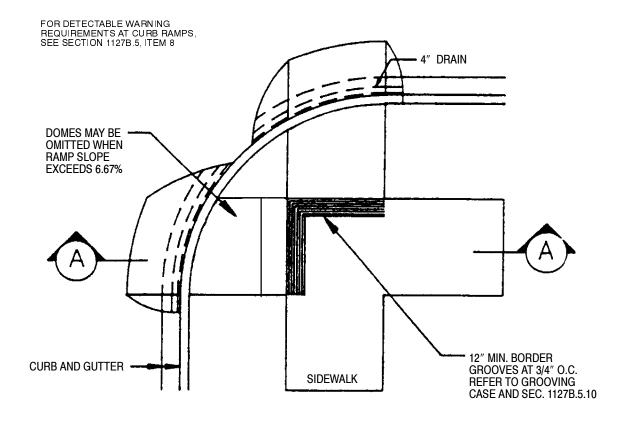


FIGURE 11B-18C—DIAGONAL PARKING STALLS

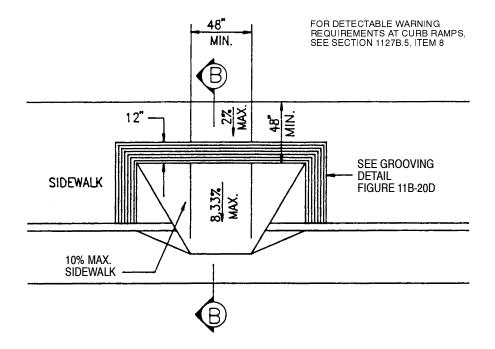


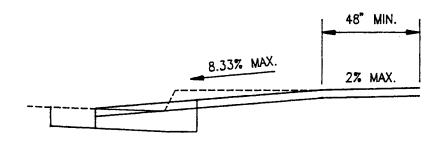


SECTION A-A



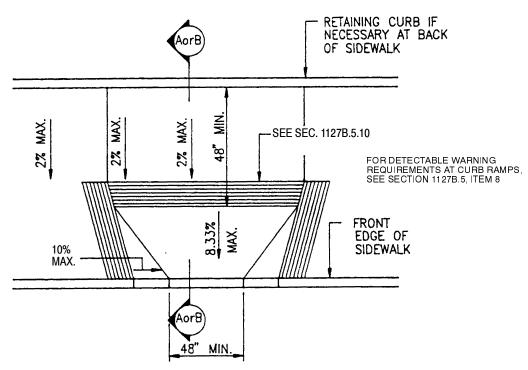
SEE FIGURE 11B-19A





SECTION B-B

CASE A

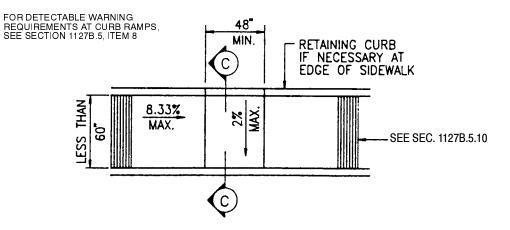


CASE B

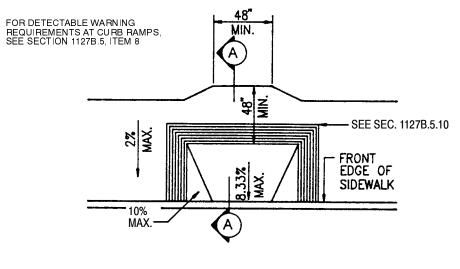
THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11B-20A—CURB DETAIL—CASES A AND B

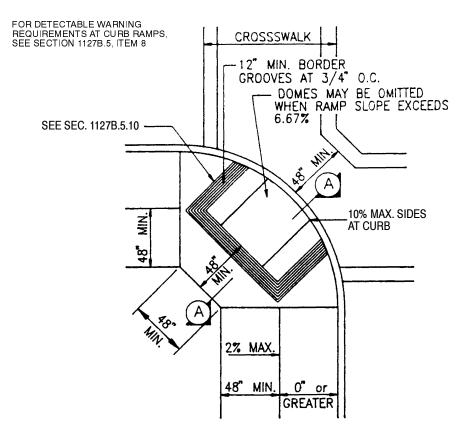
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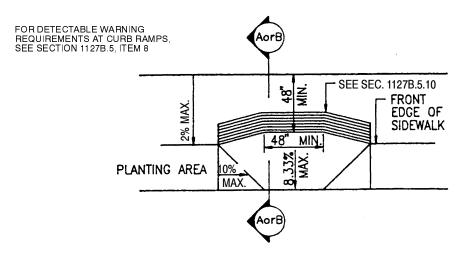
CASE C
SIDEWALK LESS THAN 60" WIDE



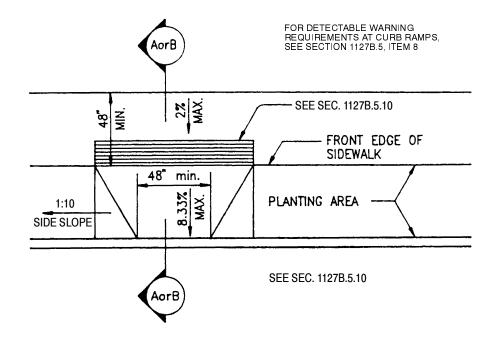
CASE D



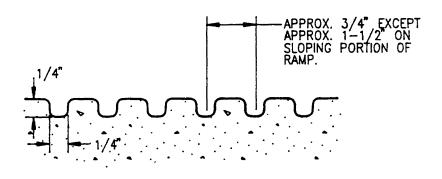
CASE E



CASE F

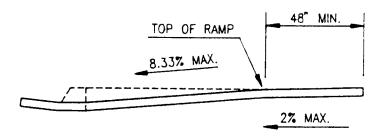


CASE G

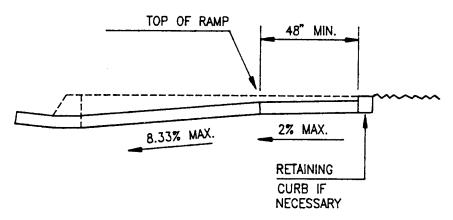


**GROOVING DETAIL** 

CASE H

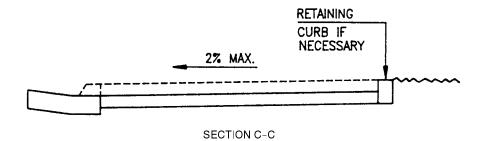


SECTION A-A

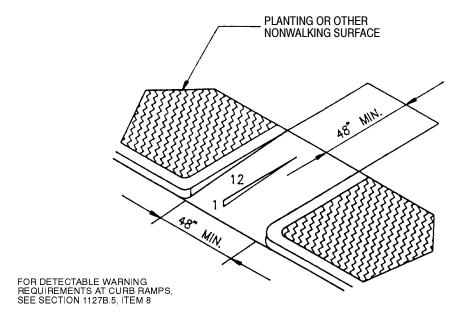


SECTION B-B

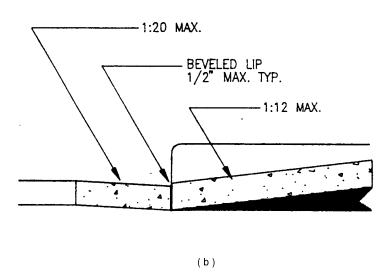
DEPRESS ENTIRE SIDEWALK AS REQUIRED



THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.



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# Chapter 11C [For DSA/AC] STANDARDS FOR CARD READERS AT GASOLINE FUEL DISPENSING FACILITIES

### SECTION 1101C — CARD-READER DEVICES AT FUEL DISPENSING EQUIPMENT

1101C.1 General. Notwithstanding other requirements in the California Building Code (CBC), only the requirements and additional definitions in this section shall apply to card-reading devices in motor vehicle fuel facilities, except that administrative requirements which are found in Chapter 1 still apply.

For purposes of this section, the following additional definitions shall apply:

ACCESSIBLE. See Chapter 11A, Section 1107A.1-A and Chapter 11B, Section 1102B.

ACCESSIBLE ELEMENT. See Chapter 2, Section 202-A.

ALTERNATE CARD READER shall be defined in this section as functionally equal card reader and control directly attached to or an integral part of the fuel dispenser in addition to the primary card reader which is in integral part of the dispenser.

**FREE-STANDING PEDESTAL** is a card-reading device which controls one or more remote fuel dispensers that have no card reader as an integral part of the fuel dispenser.

GRADE. See Chapter 2, Section 208-G.

INTERNATIONAL SYMBOL OF ACCESSIBILITY. See Chapter 11A, Section 1107A.9-I and Chapter 11B, Section 1102B.

LEVELACCESSIBLE AREA, for the purposes of this section, shall mean a slope of not more than 2 percent in front of the dispensing device; however, the slope may extend to 5 percent where the enforcing authority determines that, due to unusual site conditions, the 2 percent gradient is not obtainable.

LEVEL AREA. See Chapter 11A, Section 1107A.12-L and Chapter 11B, Section 1102B.

PATH OF TRAVEL shall include the clearance requirements stated in Chapter 11B for Wheelchair Passage Width, and Relationship of Maneuvering Clearances to Wheelchair Spaces, except that pump nozzles and hoses may overlap required clearances.

**RECOMMEND.** See Chapter 2, Section 219-R.

TYPE OF MOTOR FUEL shall mean gasoline, diesel, compressed natural gas, methanol, electricity or ethanol.

#### SECTION 1102C — APPLICATION

This section shall apply to equipment located at the following facilities:

- 1. New motor vehicle fuel facilities.
- 2. Existing motor vehicle fuel facilities built before the effective date of this section when:

- 2.1 Remodeling or reconstruction includes removal and replacement of one or more islands and associated piping and tank(s); or
- 2.2 Remodeling includes reconstruction or removal and replacement of fuel islands at facilities that provide freestanding pedestal card readers.

### SECTION 1103C — NUMBER OF ACCESSIBLE CARD-READING DEVICES REQUIRED

Where only one card-reading device is installed for use with any type of motor fuel, it shall meet the required features of this section. When more than one card-reading location is available for a specific type of motor fuel, a minimum of two for that type shall have the accessible features of this section.

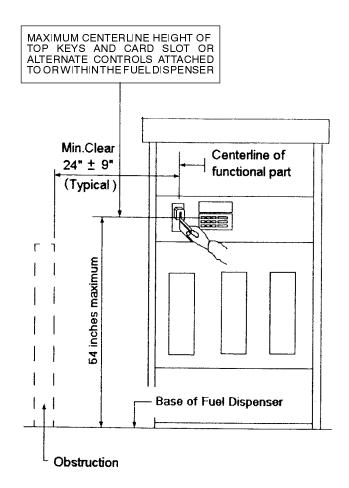
#### SECTION 1104C — REQUIRED FEATURES

Card-reading devices at motor vehicle fuel facilities shall be accessible by complying with only the following:

- 1. The highest operable part of each primary or alternate card reader shall be no more than 54 inches (1372 mm) measured from the base of the fuel dispenser. Where card readers are located on free-standing pedestals, the card-reading control function shall be no more than 54 inches (1372 mm) above an accessible level area which is served by an accessible path of travel.
  - EXCEPTION: If an enforcing agency requires that fuel dispensers or card-reading devices be placed in a manner where the card-reading device exceeds the requirements described herein, the provisions of Section 1104C do not apply. Any enforcing agency having jurisdiction over retail fueling facilities may not require islands or impose other regulations which conflict with this section, unless the agency documents and justifies the specific necessity for such a rule or ordinance and complies with the requirements of Health and Safety Code Section
- 2. An accessible path of travel shall be provided to the base of all fuel dispensers required to meet the provisions of this section. Such fuel dispensers shall be mounted on the accessible level area.
- 3. An accessible level area shall be provided which is minimally 30 inches by 48 inches (762 mm by 1219 mm) level and clear. This area shall be provided within 10 inches (254 mm) in plan view of the face of the controls and shall be unobstructed by any features, except pump nozzles and hoses, with the long side of this space parallel to and centered [plus or minus 9 inches (229 mm)] with the face of the card-reader controls. (See Figures 11C-1 and 11C-2.)

## SECTION 1105C — PROTECTION OF DISPENSERS MOUNTED AT GRADE

Dispensers mounted at grade shall be protected from vehicular damage as required by Section 5201.5.1, Part 9, Title 24 (California Fire Code).



#### C A C A C A C

#### Chapter 30

# ELEVATORS, DUMBWAITERS, ESCALATORS AND MOVING WALKS

#### SECTION 3001 — SCOPE

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The provisions of this chapter shall apply to the design, construction, installation, operation, alteration and repair of elevators, dumbwaiters, escalators and moving walks and their hoistways.

[For DSA/AC] EXCEPTION: For accessibility requirements for special access lifts, see California Code of Regulations, Title 24, Part 7, Article 7-15, Sections 7-3093 through 7-3094.5 and Part 2, Sections 1124A and 1116B.

3001.1 [For DSA/AC & HCD 1 and HCD 1/AC] Referenced Standards. For elevators and special access lifts in covered multifamily dwellings see Chapter 11A, Section 1124A.

For accessibility requirements for elevators and special access (wheelchair) lifts in public accommodations, commercial buildings, and publicly funded, owned or leased housing, see Chapter IB, Section 1116B.

# SECTION 3002 — ELEVATOR AND ELEVATOR LOBBY ENCLOSURES

Walls and partitions enclosing elevator and dumbwaiter hoistway shafts and escalator shafts shall not be of less than the fire-resistive construction required under Types of Construction in Chapter 6 of this code.

Elevator hoistway shaft enclosure walls not required to have a fire-resistive rating may be constructed with glass. Such glass shall be laminated glass that passes the test requirements of UBC Standard 24-2, Part I.

Elevator lobbies shall have at least one means of egress. The use of exit or exit-access doors shall not require keys, tools, or special knowledge or effort.

#### **SECTION 3003 — SPECIAL PROVISIONS**

**3003.1** Number of Cars in Hoistway. When there are three or fewer elevator cars in a building, they may be located within the same hoistway enclosure. When there are four elevator cars, they shall be divided in such a manner that at least two separate hoistway enclosures are provided. When there are more than four elevators, not more than four elevator cars may be located within a single hoistway enclosure.

**3003.2** Smoke-detection Recall. When the elevator vertical travel is 25 feet (7620 mm) or more, each associated elevator lobby or entrance area and associated machine rooms shall be provided with an approved, listed smoke detector for elevator recall purposes only. The detector may serve to close the elevator lobby door and additional doors at the hoistway opening allowed in Section 3006.

When the lobby or entrance area smoke detector, or machine room smoke detector, is activated, elevator doors shall be prevented from opening and all cars serving that lobby or entrance area, or served by equipment in that machine room, shall return to the main floor where they shall be under manual control only. If the main floor or transfer floor lobby or entrance-area smoke detector is activated, all cars serving the main floor or transfer floor shall return to a location approved by the chief of the fire de-

partment and building official where they shall be under manual control only.

**3003.3 Standby Power.** Standby power when required by Section 403 shall be provided to at least one elevator in each bank. Standby power shall be manually transferable to all *[for OSHPD 1, 2 & 4] or any other* elevators in each bank *[for OSHPD 1, 2 & 4] and shall be capable of operating the elevator with a full load at a speed of not less than 150 feet per minute (0.762 m/s).* Standby power shall be provided by an approved self-contained generator set to operate automatically whenever there is a loss of electrical power to the building. The generator set shall be located in a separate room enclosed by at least a one-hour fire-resistive occupancy separation. The generator shall have a fuel supply adequate to operate the equipment connected to it for a minimum of two hours *[for SFM] six hours.* 

**EXCEPTIONS:** 1. Where a single elevator serves all floor levels in the building and is located so that all areas of the building can be reached within a travel distance of 300 feet (91 440 mm) from the elevator, then only that elevator need be provided with standby power.

2. Standby power shall be capable of operating one elevator at a time in any bank or group of banks having a common lobby.

**NOTE:** A bank of elevators is a group of elevators or a single elevator controlled by a common operating system; that is, all those elevators that respond to a single call button constitute a bank of elevators. There is no limit on the number of cars that may be in a bank or group, but there may not be more than four cars within a common hoistway.

#### 3003.4 Size of Cab and Control Locations.

**3003.4.1 General.** In buildings three or more stories in height served by an elevator or a building served by an elevator required by Chapter 11, at least one elevator serving all floors shall accommodate a wheelchair, in accordance with this section.

[For DSA/AC] EXCEPTION: For accessibility requirements for size of cab and control locations in accessible housing, see Chapter 11A, Section 1124A.3 and for public buildings, public accommodations, commercial buildings, and publicly funded housing, see Chapter 11B, Section 1116B.1.1.

**3003.4.2 Operation and leveling.** The elevator shall be automatic and be provided with a self-leveling feature that will automatically bring the car to the floor landings within a tolerance of plus or minus  $^{1}/_{2}$  inch (12.7 mm) under normal loading and unloading conditions. This self-leveling shall, within its zone, be entirely automatic and independent of the operating device and shall correct the overtravel or undertravel. The car shall also be maintained approximately level with the landing, irrespective of load.

[For DSA/AC] EXCEPTION: For accessibility requirements for operation and leveling in accessible housing, see Chapter 11A, Section 1124A.10. For public buildings, public accommodations, commercial buildings and publicly funded housing, see Chapter 11B, Section 1116B.1.2.

**3003.4.3 Door operation.** Power-operated horizontally sliding car and hoistway doors opened and closed by automatic means shall be provided.

**3003.4.4 Door size.** Minimum clear width for elevator doors shall be 36 inches (914 mm).

**EXCEPTIONS:** 1. When approved by the building official, the minimum door width may be reduced to 32 inches (813 mm) for a car with dimensions as permitted by the exception to Section 3003.4.7.

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C L A L C L A L C L A L C L A L L A L A L A 2. [For DSA/AC] For accessibility requirements for door size in public buildings, public accommodations, commercial buildings and publicly funded housing, see Chapter 11B, Section 1116B.1.4.

**3003.4.5** Door protective and reopening device. Doors closed by automatic means shall be provided with a door-reopening device that will function to stop and reopen a car door and adjacent hoistway door in case the car door is obstructed while closing. This reopening device shall also be capable of sensing an object or person in the path of a closing door without requiring contact for activation at a nominal 5 inches and 29 inches (127 mm and 737 mm) above the floor.

Door-reopening devices shall remain effective for a period of not less than 20 seconds.

[For DSA/AC] EXCEPTION: For accessibility requirements for door protective and reopening device in accessible housing, see Chapter 11A, Section 1124A.9. For public buildings, public accommodations, commercial buildings, and publicly funded housing, see Chapter 11B, Section 1116B.1.5.

#### 3003.4.6 Door delay (passenger service time).

**3003.4.6.1** Hall call. The minimum acceptable time from notification that a car is answering a call (lantern and audible signal) until the doors of that car start to close shall be as indicated in the following table:

DISTANCE, feet (mm)	TIME (seconds)
0 to 5 (0 to 1524)	4
10 (3048)	7
15 (4572)	10
20 (6096)	13

The distance shall be established from a point in the center of the corridor or lobby [maximum 5 feet (1524 mm)] directly opposite the farthest hall button to the center line of the hoistway entrance.

[For DSA/AC] EXCEPTION: For accessibility for hall call in accessible housing, see Chapter 11A, Section 1124A.7.1. For public buildings, public accommodations, commercial buildings and publicly funded housing, see Chapter 11B, Section 1116B.1.6.

**3003.4.6.2** Car call. The minimum acceptable time for doors to remain fully open shall not be less than three seconds.

[For DSA/AC] EXCEPTION: For accessibility requirements for car call in accessible housing, see Chapter 11A, Section 1124A. 7.2. For public buildings, public accommodations, commercial buildings and publicly funded housing, see Chapter 11B, Section 1116B.1.7.

**3003.4.7** Car inside. The car inside shall allow for the turning of a wheelchair. The minimum clear distance between walls or between wall and door, excluding return panels, shall not be less than 68 inches by 54 inches (1727 mm by 1372 mm). Minimum distance from wall to return panel shall not be less than 51 inches (1295 mm).

**EXCEPTION:** When approved by the building official, elevators provided in schools, institutions or other buildings may have a minimum clear distance between walls or between wall and door, excluding return panels, of not less than 54 inches by 54 inches (1372 mmby 1372 mm). Minimum distance from wall to return panel shall not be less than 51 inches (1295 mm).

[For DSA/AC] EXCEPTION: For accessibility requirements for car inside in public buildings, public accommodations, commercial buildings and publicly funded housing, see Chapter 11B, Section 1116B.1.8.

**3003.4.8** Car controls. Controls shall be readily accessible from a wheelchair upon entering an elevator.

The center line of the alarm button and emergency stop switch shall be at a nominal 35 inches (889 mm), and the highest floor button no higher than 54 inches (1372 mm) from the floor. Floor

registration buttons, exclusive of border, shall be a minimum  $^{3}/_{4}$  inch (19.1 mm) in size, raised, flush or recessed. Visual indication shall be provided to show each call registered and extinguished when call is answered. Depth of flush or recessed buttons when operated shall not exceed  $^{3}/_{8}$  inch (9.5 mm).

Markings shall be adjacent to the controls on a contrasting color background to the left of the controls. Letters or numbers shall be a minimum of  $\frac{5}{8}$  inch (15.9 mm) high and raised or recessed 0.030 inch (0.8 mm).

Applied plates permanently attached shall be acceptable.

Emergency controls shall be grouped together at the bottom of the control panel.

Controls not essential to the automatic operation of the elevator may be located as convenient.

[For DSA/AC] EXCEPTION: For accessibility requirements for car controls in accessible housing, see Chapter 11A, Section 1124A.3.3. For public buildings, public accommodations, commercial buildings and publicly funded housing, see Chapter 11B, Section 1116B.1.9.

**3003.4.9** Car position indicator and signal. A car position indicator shall be provided above the car operating panel or over the opening of each car to show the position of the car in the hoistway by illumination of the indication corresponding to the landing at which the car is stopped or passing.

Indications shall be on a contrasting color background and a minimum of  $^{1}/_{2}$  inch (12.7 mm) in height.

In addition, an audible signal shall sound to tell a passenger that the car is stopping or passing a floor served by the elevator.

A special button located with emergency controls may be provided. Operation of the button will activate an audible signal only for the desired trip.

[For DSA]AC] EXCEPTION: For accessibility requirements for car position indicator and signal in public buildings, public accommodations, commercial buildings and publicly funded housing, see Chapter 11B, Section 1116B.1.10.

**3003.4.10** Telephone or intercommunicating system. A means of two-way communication shall be provided between the elevator and a point outside the hoistway.

If a telephone is provided, it shall be located a maximum of 54 inches (1372 mm) from the floor with a minimum cord length of 29 inches (737 mm). Markings or the international symbol for telephones shall be adjacent to the control on a contrasting color background. Letters or numbers shall be a minimum of  $\frac{5}{8}$  inch (15.9 mm) high and raised or recessed 0.030 inch (0.8 mm).

Applied plates permanently attached shall be acceptable.

**3003.4.11 Floor covering.** Floor covering shall have a nonslip hard surface that permits easy movement of wheelchairs.

If carpeting is used, it shall be securely attached, heavy duty, with a tight weave and low pile, installed without padding.

**3003.4.12 Handrails.** A handrail shall be provided on one wall of the car, preferably the rear. The rails shall be smooth and the inside surface at least  $1^{1}/_{2}$  inches (38 mm) clear of the walls at a nominal height of 32 inches (813 mm) from the floor.

Nominal =  $\pm 1$  inch (25 mm).

**NOTE:** Thirty-two inches (813 mm) required to reduce interference with car controls where lowest button is centered at 35 inches (889 mm) above floor.

[For DSA/AC] EXCEPTION: For accessibility requirements for handrails in public buildings, public accommodations, commercial buildings and publicly funded housing, see Chapter 11B, Section 1116B.1.11.

**3003.4.13 Minimum illumination.** The minimum illumination at the car controls and the landing when the car and landing doors are open shall not be less than 5 footcandles (54 lx).

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[For DSA/AC] EXCEPTION: For accessibility requirements for minimum illumination at car controls in accessible housing, see Chapter 11A, Section 1124A.5. For public buildings, public accommodations, commercial buildings and publicly funded housing, see Chapter 11B, Section 1116B.1.12.

**3003.4.14** Hall buttons. The center line of the hall call buttons shall be a nominal 42 inches (1067 mm) above the floor.

Direction buttons, exclusive of border, shall be a minimum of  $^{3}/_{4}$  inch (19.1 mm) in size, raised, flush or recessed. Visual indication shall be provided to show each call registered and extinguished when the call is answered. Depth of flush or recessed button when operated shall not exceed  $^{3}/_{8}$  inch (9.5 mm).

[For DSA/AC] EXCEPTION: For accessibility requirements for hall call button center line in public buildings, public accommodations, commercial buildings and publicly funded housing, see Chapter 11B, Section NO TAG.

**3003.4.15 Hall lantern.** A visual and audible signal shall be provided at each hoistway entrance indicating to the prospective passenger the car answering the call and its direction of travel.

The visual signal for each direction shall be a minimum of  $2^{1}/_{2}$  inches (64 mm) in size and visible from the proximity of the hall call button.

The audible signal shall sound once for the up direction and twice for the down direction.

The center line of the fixture shall be located a minimum of 6 feet (1829 mm) from the floor.

The use of in-car lanterns conforming to the above and located  $_{\rm C}\,$  in jamb shall be acceptable.

[For DSA/AC] EXCEPTION: For accessibility requirements for hall lantern in accessible housing, see Chapter 11A, Section 1124A.6. For public buildings, public accommodations, commercial buildings and publicly funded housing, see Chapter 11B, Section 1116B.1.13.

**3003.4.16 Doorjamb marking.** The floor designation shall be provided at each hoistway entrance on both sides of jamb visible from within the car and the elevator lobby at a height of 60 inches (1524 mm) above the floor. Designations shall be on a contrasting background 2 inches (51 mm) high and raised 0.030 inch (0.8 mm).

Applied plates permanently attached shall be acceptable.

[For DSA/AC] EXCEPTION: For accessibility requirements for doorjamb marking in accessible housing, see Chapter 11A, Section 1124A.8. For public buildings, public accommodations, commercial buildings and publicly funded housing, see Chapter 11B, Section 1116B.1.14.

#### 3003.4.17 Location.

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[For DSA/AC] EXCEPTION: For accessibility requirements for location of passenger elevators in accessible housing, see Chapter 11A, Section 1124A.2. For public buildings, public accommodations, commercial buildings and publicly funded housing, see Chapter 11B, Section 1116B.1.15.

3003.4.18 [For SFM] Emergency devices for summoning assistance.

3003.4.18.1 [For SFM] Passenger elevators and automatic operation freight elevators shall be provided with an emergency alarm system, operable from within the car, which will provide effective means for summoning assistance at all hours in case of emergency.

**3003.4.18.2** [For SFM] New installations of passenger or freight elevators, which are operated at any time without a designated operator in the car, shall be provided with one of the two following emergency alarm systems:

**3003.4.18.2.1** [For SFM] A telephone in each elevator car connected to a central telephone exchange providing 24-hour service.

3003.4.18.2.2 [For SFM] A system meeting the following requirements:

- 1. An electric bell, operable from the car, not less than 6 inches (152 mm) in diameter, located inside the building and audible inside and outside the hoistway. One bell operable from all cars may be used for a group of elevators.
- 2. Means for two-way conversation between each elevator and a readily accessible point outside the hoistway.

EXCEPTIONS: 1. Elevators in buildings having a height from the lowest to the highest elevator landing or not more than 65 feet (19812 mm) providing the distance between any adjacent landing does not exceed 15 feet (4572 mm).

2. When the means of communication with an approved emergency service permits two-way conversation.

NOTE: See Section 3003.7.

3. If the bell or the means of two-way conversation, or both, are normally connected to the building power supply, they shall automatically transfer to a source of emergency power within 10 seconds after the normal supply fails. The power source shall be capable of providing for the operation of the bell for one hour and the means of two-way conversations for four hours.

3003.4.18.3 [For SFM] Where elevators which are operated at any time without a designated operator in the car are located in buildings, other than apartments, hotels or similar residential buildings, where attendants, watchmen or tenants are not continuously available to take action in case the emergency signal is operated, and are not provided with a telephone in the elevator car connected to a central exchange system, they shall be provided with one of the following additional emergency signal devices:

3003.4.18.3.1 [For SFM] An electrical alarm bell, not less than 6 inches (152 mm) in diameter, operable from inside the car shall be mounted in a weatherproof enclosure on the outside of the building near the main entrance. A sign that can be read from the adjacent sidewalk shall be mounted on or near the bell and shall be marked ELEVATOR EMERGENCY, CALL POLICE in letters not less than 2 inches (51 mm) high. Only one outside alarm bell is required, which shall be operable from the cars of all elevators of the type specified in the building. An emergency power source meeting the requirements of Section 3003.7 shall be provided.

**3003.4.18.3.2** [For SFM] Means within the car for communicating with or signaling to an approved emergency service which operates 24 hours each day.

**3003.4.18.4** [For SFM] A sign, having lettering not less than  $^{3}$ /<sub>16</sub> inch (4.8 mm), shall be provided in passenger elevators adjacent to the car emergency alarm giving instructions as to the use of the device for summoning assistance.

**3003.5 Stretcher Requirements.** In all structures four or more stories in height, at least one elevator shall be provided with a minimum clear distance between walls or between walls and door excluding return panels, of not less than 80 inches by 54 inches (2032 mm by 1372 mm), and a minimum distance from wall to return panel of not less than 51 inches (1295 mm) with a 42-inch (1067 mm) side slide door, unless otherwise designed to accommodate an ambulance-type stretcher 76 inches (1930 mm) by 24 inches (610 mm) in the horizontal position.

In buildings where one elevator does not serve all floors, two or more elevators may be used. The elevators shall be identified by the international symbol for emergency medical services (Star of Life). The symbol shall not be less than 3 inches (76 mm) and placed inside on both sides of the hoistway door frame. The sym-

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bol shall be placed no lower than 78 inches (1981 mm) from the floor level or higher than 84 inches (2134 mm) from floor level.

The following California sections replace the corresponding model code section for applications specified by law for the Office of the State Fire Marshal.

3003.5a General Stretcher Requirements. All buildings and structures with one or more passenger service elevators shall be provided with not less than one medical emergency service to all landings meeting the provisions of Section 3003.5.

**EXCEPTIONS:** 1. Elevators in structures used only by maintenance and operating personnel.

- 2. Elevators in jails and penal institutions.
- 3. Elevators in buildings or structures where each landing is at ground level or is accessible at grade level or by a ramp.
- 4. Elevator(s) in two-story buildings or structures equipped with stairs of a configuration that will accommodate the carrying of the gurney or stretcher as permitted by the local jurisdictional authority.
- 5. Elevators in buildings or structures less than four stories in height for which the local jurisdictional authority has granted an exception in the form of a written document.
- 3003.5.1a Gurney size. The medical emergency service elevator shall accommodate the loading and transport of an ambulance gurney or stretcher [maximum size 24 inches by 76 inches (610 mm by 1930 mm)] in the horizontal position.
- **3003.5.2a Hoistway doors.** The hoistway landing openings shall be provided with power-operated doors.
- 3003.5.3a Elevator entrance openings and car size. The elevator entrance shall have a clear opening of not less than 42 inches (1067 mm) wide or less than 78 inches (1981 mm) high.

The elevator car shall be provided with a minimum clear distance between walls or between walls and door excluding return panels not less than 80 inches by 54 inches (2032 mm by 1372 mm), and a minimum distance from wall to return panel not less than 51 inches (1295 mm) with a 42-inch (1067mm) side slide door.

EXCEPTION: The elevator car dimensions and/or the clear entrance opening dimensions may be altered where it can be demonstrated to the local jurisdictional authority's satisfaction that the proposed configuration will handle the designated gurney or stretcher with equivalent ease. Documentation from the local authority shall be provided to the Occupational Safety and Health Standards Board.

- **3003.5.4a** Elevator recall. The elevator(s) designated the medical emergency elevator shall be equipped with a key switch to recall the elevator nonstop to the main floor. For the purpose of this section, elevators in compliance with Section 3003.9.1.1 shall be acceptable.
- **3003.6a Designation.** Medical emergency elevators shall be identified by the international symbol (Star of Life) for emergency medical services.
- **3003.6.1a** Symbol size. The symbol shall not be less than 3 inches (76 mm) in size.
- 3003.6.2a Symbol location. A symbol shall be permanently attached to each side of the hoistway door frame on the portion of the frame at right angles to the hallway or landing area. Each symbol shall be not less than 78 inches (1981 mm) and not more than 84 inches (2134 mm) above the floor level at the threshold.
- **3003.6 Emergency Signs.** Except at the main entrance level, an approved pictorial sign of a standardized design shall be posted

adjacent to each elevator call station to indicate that, in case of fire, the elevator will not operate and that exit stairways should be used.

**3003.7 Restricted or Limited-use Elevators.** The building official may waive the requirements of this section for any elevator designed for limited or restricted use serving only specific floors or a specific function.

3003.8 [For SFM] Photoelectric Tube Bypass Switch.

3003.8.1 [For SFM] Elevators equipped with photoelectric tube devices which control the closing of automatic, power-operated car or hoistway doors, or both, shall have a switch in the car which, when actuated, will render the photoelectric tube device ineffective.

**3003.8.2** [For SFM] The switch shall be constant-pressure type, requiring not less than 10 pounds (44.5 N) or more than 15 pounds (66.7 N) pressure to actuate.

**3003.8.3** [For SFM] The switch shall be located not less than 6 feet (1829 mm) or more than 6 feet 6 inches (1981 mm) above the car floor and shall be located in or adjacent to the operating panel

**3003.8.4** [For SFM] The switch shall be clearly labeled TO BE USED IN CASE OF FIRE ONLY.

**3003.8.5** [For SFM, DOSH] Switches shall be kept in working order or be removed when existing installations are arranged to comply with Section 3003.8.5, Exception 1 or 2.

EXCEPTIONS [For SFM, DOSH]: 1. Elevators installed and maintained in compliance with Section 3003.9.

- 2. Where alternate means acceptable to the division and fire authority having jurisdiction are provided that will ensure the doors can close under adverse smoke conditions.
- 3003.9 [For SFM] Operation of Elevators under Fire or Other Emergency Conditions.
- **3003.9.1** [For SFM] General. Elevators with automatic operation and automatic power-operated hoistway doors shall conform to the following:

**EXCEPTION:** New elevators having a travel of not more than 25 feet (7620 mm) and elevators existing at the time of adoption of this order with a travel of not more than 50 feet (15 240 mm).

- 3003.9.1.1 [For SFM] A three-position (on, off and bypass) key-operated switch shall be provided at the main floor for each single elevator or for each group of elevators. The key shall be removable only in the on and off positions. When the switch is in the on position, all elevators controlled by this switch and which are on automatic service shall return nonstop to the main floor and the doors shall open and remain open.
- 1. An elevator traveling away from the main floor shall reverse at the next available floor without opening its doors.
- 2. Elevators standing at a floor other than the main floor with doors open, shall close the doors without delay, and proceed to the main floor.
- 3. Door reopening devices for power-operated doors which are sensitive to products of combustion, heat or flame shall be rendered inoperative.
- 4. All car and corridor call buttons shall be rendered inoperative and all call registered lights and direction lanterns shall be extinguished and remain inoperative.
- 5. A car stopped at a landing shall have its "emergency stop switch" rendered inoperative as soon as the doors are closed and it starts toward the main floor. A moving car traveling to or away from the main floor shall have its emergency stop switch rendered inoperative immediately.

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# Chapter 35 UNIFORM BUILDING CODE STANDARDS

#### Part I—General

#### SECTION 3501 — UBC STANDARDS

The Uniform Building Code standards referred to in various parts of this code, which are also listed in Part II of this chapter, are hereby declared to be part of this code and are referred to in this code as a "UBC standard."

#### SECTION 3502 — ADOPTED STANDARDS

The standards referred to in various parts of the code, which are listed in Part III of this chapter, are hereby declared to be part of this code.

#### SECTION 3503 — STANDARD OF DUTY

The standard of duty established for the recognized standards listed in Part IV of this chapter is that the design, construction and quality of materials of buildings and structures be reasonably safe for life, limb, health, property and public welfare.

#### **SECTION 3504 — RECOGNIZED STANDARDS**

The standards listed in Part IV of this chapter are recognized standards. Compliance with these recognized standards shall be prima facie evidence of compliance with the standard of duty set forth in Section 3503.

This California section replaces the corresponding section of model code for applications specified by law for the Division of the State Architect, Structural Safety Section, and the Office of Statewide Health Planning and Development.

#### SECTION 3504a — OTHER STANDARDS

[For DSA/SS, OSHPD 1 & 4] The other standards referred to in various parts of this code, which are also listed in Part III of this chapter, are hereby declared to be part of this code.

#### Part II—UBC Standards

UBC STD. AND SEC.

#### TITLE AND SOURCE

#### **CHAPTER 2**

2-1; 201.2, 215

Noncombustible Material—Tests. Standard Method of Test E 136-79 of the ASTM.\*

#### **CHAPTER 4**

4-1; 303.8, 405.1.1, 405.3.4

Proscenium Firesafety Curtains. Installation Standard of the International Conference of Building Officials.

#### CHAPTER 3

12-3; 310.4.3

[For SFM] See Part 12, Chapter 12-3 for "Releasing Systems for Security Bars in Dwellings." This standard in-

cludes provisions of the Underwriters Laboratories (UL), Subject 2326, Appendix B, dated December 17, 1999, and reprinted with their permission.

#### CHAPTER 7

7-1; 405.1.1, 601.3, 703.2, 703.4, 706, 709.3.2.2, 709.5, 709.6, 710.2, Table 7-A, 2602.5.2

Fire Tests of Building Construction and Materials. Standard Methods E 119-83 of the ASTM.

7-2; 302.4, 703.4, 713.5, 713.9, 1004.3.4.3.2, 1005.3.3.5 Fire Tests of Door Assemblies. Standard 10B-1988 of Underwriters Laboratories Inc. and International Conference of Building Officials Test Standard for Smoke- and Draft-Control Door Assemblies.

7-3; 703.4, 713.5

Tinclad Fire Doors. Specification of the American National Standards Institute/Underwriters Laboratories Inc. 10A-1979 (R 1985).

7-4; 703.4, 713.5, 713.9

Fire Tests of Window Assemblies. Standard Methods E 163-76 of the ASTM.

7-5; 703.4, 714

Fire Tests of Through-penetration Fire Stops. Standard Method E 814-83 of the ASTM.

7-6; 703.4; 704.6; 1701.4; 1701.5, Item 10

Thickness and Density Determination for Spray-applied Fireproofing. Test Standard of the International Conference of Building Officials.

7-7; 703.3, 703.4

Methods for Calculating Fire Resistance of Steel, Concrete, Wood, Concrete Masonry and Clay Masonry Construction. Standard of the International Conference of Building Officials.

7-8; 308.2.2.1, 1001.2, 1003.3.1.2

Horizontal Sliding Fire Doors Used in an Exit. Test Standard of the International Conference of Building Officials.

#### [For SFM] CHAPTER 7A

7A-1 704A.2.1 ASTM E2010

Fire resistive rating for exterior glazing.

7A-2 704A,2,2 ASTM E2074

Fire resistive rating for exterior door assemblies.

7A-3 704A.4.1.1 UBC 23-4

Fire retardant treated wood teats on the durability and hydroscipic properties. This standard is located in the 1997 Uniform Material Testing and Installation Standards, Volume 3 of the Uniform Building Code.

#### **CHAPTER 8**

8-1; 201.2; 207; 215; 217; 405.1.1; 601.3; 707.2; 707.3; 801.2; 802.1, Item 1; 802.2; 2602.3; 2602.5.2; 2602.6

Test Method for Surface-burning Characteristics of Building Materials. Standard Test Method E 84-84 of the ASTM.

8-2; 801.2, 805

Standard Test Method for Evaluating Room Fire Growth Contribution of Textile Wall Covering. Test Method of the International Conference of Building Officials.

#### **CHAPTER 9**

9-1; 307.11.3, 321.1, 403.2, 404.3.1, 405.1.1, 804.1, 902, 904.1.2, 904.1.3, 904.2.6.3, 904.2.7, 904.3.2, 2603.7.1, 2603.8.1

Installation of Sprinkler Systems. Standard for the Installation of Sprinkler Systems.

tion of Sprinkler Systems, NFPA 13-1991 [for SFM] NFPA 13-2002, National Fire Protection Association.

9-2; 902, 904.1.2, 904.5.1

Standpipe Systems. The Standard for Installation of Standpipe Systems and Hose Systems, NFPA 14-1993 [for SFM] NFPA 14-2003, National Fire Protection Association.

9-3; 804.1, 805, 902, 904.1.2, 904.1.3, 2603.7.1, 2603.8.1 Installation of Sprinkler Systems in Group R Occupancies Four Stories or Less. Standard for the Installation of Sprinkler Systems in Residential Occupancies up to Four Stories in Height, NFPA 13R-1989 [for SFM] NFPA 13R-2002, National Fire Protection Association.

#### **CHAPTER 10**

10-1; 1001.2, 1003.3.1.2

Power-operated Exit Doors. Test Standard of the International Conference of Building Officials.

10-2; 1001.2, 1003.3.3.13

Stairway Identification. Specification Standard of the International Conference of Building Officials.

10-3; Appendix 3407.1

Exit Ladder Device. Test Standard of the International Conference of Building Officials.

10-4: 1001.2, 1003.3.1.9

Panic Hardware. Standard 305, July 30, 1979, of Underwriters Laboratories Inc.

#### **CHAPTER 14**

14-1; 601.3, 1401.2, 1402.1

Kraft Waterproof Building Paper. Federal Specification UU-B-790a (February 5, 1968).

14-2; 1401.2, 1404

Vinyl Siding. Standard Specification D 3679-91 for Rigid Polyvinyl Chloride (PVC) of the ASTM.

#### **CHAPTER 15**

15-1; 1501.2, Table 15-E

Roofing Aggregates. Material Standard of the International Conference of Building Officials.

15-2; 601.3, 1501.2, 1502, Table 15-A, 2602.5.3

Test Standard for Determining the Fire Retardancy of Roof-covering Materials. Standard Specification 790 (October 5, 1983) of Underwriters Laboratories Inc.

15-3; 1501.2, 1502, 1507.2, 1507.12

Wood Shakes. Part I—Wood Shakes (nonpreservative treated). Grading and Packing Rules for Red Cedar Shakes. Grading Rules of the Red Cedar Shingle & Handsplit Shake Bureau, 1975. Part II—Wood Shake Hip and Ridge Units (nonpreservative). Shake and Shingle Council and Material Standard of the International Conference of Building Officials. Part III—Wood Shakes (preservative treated). Grading and Packing Rules for Treated Southern Pine and Red Pine, Black Gum/Sweet Gum Taper-sawn Shakes. Grading Rules of the Red Cedar Shingle & Handsplit Shake Bureau, 1982, and Material Standard of the International Conference of Building Officials. Part IV—Southern Yellow Pine, Red Pine, Black Gum/Sweet Gum Taper-sawn Shake Hip and Ridge Units. Material Standard of the International Conference of Building Officials.

15-4; 1501.2, 1502, 1507.2, 1507.13

Wood Shingles. Standard of the Red Cedar Shingle & Handsplit Shake Bureau and Material Standard of the International Conference of Building Officials.

15-5; 1501.2, 1502, 1507.7

Roof Tile. Test Standard of the International Conference of Building Officials.

15-6; 1501.2, 1502

Modified Bitumen, Thermoplastic and Thermoset Membranes Used for Roof Coverings. Standard Specifications D 412-87, D 471-79, D 570-81, D 624-86, D 638-84, D 751-79, D 816-82, D 1004-66 (1981), D 1204-84, D 2136-84 and D 2137-83 of the ASTM.

15-7; 906.1, 906.4, 1501.2

Automatic Smoke and Heat Vents. Material Standard of the International Conference of Building Officials.

#### **CHAPTER 18**

18-1; 1801.2, 1803.1

Soils Classification. Standard Method D 2487-69 of the ASTM.

18-2; 1801.2, 1803.2

Expansion Index Test. Recommendation of the Los Angeles Section of the ASCE Soil Committee.

#### **CHAPTER 19**

19-1; 1903.5.2, 1912.14.3

Welding Reinforcing Steel, Metal Inserts and Connections in Reinforced Concrete Construction. Structural Welding Code—Reinforcing Steel ANSI/AWS D1.4-92 of the American Welding Society, Inc.

19-2; 1903.9, 1925.1, 1925.3

Mill-Mixed Gypsum Concrete and Poured Gypsum Roof Diaphragms. Standard Specification C 317-70 of the ASTM. Poured Gypsum Roof Diaphragm, based on reports of test programs by S. B. Barnes and Associates, dated February 1955, November 1956, January 1958 and February 1962.

#### **CHAPTER 21**

21-1; 2102.2, Item 4

Building Brick, Facing Brick and Hollow Brick. (Made from Clay or Shale.) Standard Specifications C 62-92c, C 216-94a and C 652-94a of the ASTM.

21-2; 2102.2, Item 6

Calcium Silicate Face Brick (Sand-lime Brick). Standard Specification C 73-95 of the ASTM.

21-3; 2102.2, Item 5

Concrete Building Brick. Standard Specification C 55-95 of the ASTM.

21-4; 2102.2, Item 5

Hollow and Solid Load-bearing Concrete Masonry Units. Standard Specification C 90-95 of the ASTM.

21-5; 2102.2, Item 5

Nonload-bearing Concrete Masonry Units. Standard Specification C 129-95 of the ASTM.

21-6; See *Uniform Code for Building Conservation*.

In-Place Masonry Shear Tests. Test Standard of the International Conference of Building Officials.

21-7; See *Uniform Code for Building Conservation*.

Tests of Anchors in Unreinforced Masonry Walls. Test
Standard of the International Conference of Building Offi-

21-8; See Uniform Code for Building Conservation.

Pointing of Unreinforced Masonry Walls. Construction Specification of the International Conference of Building Officials.

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Eastern Woods, Eastern Spruce, Balsam Fir, Eastern White Pine, Northern Pine, Eastern Hemlock-Tamarack, Aspen,		Particleboard. American National Standard for Particleboard. ANSI A208.1-93	2303
Eastern Softwoods, Eastern Hemlock, Spruce-Pine-Fir (South), Red Pine and Northern White Cedar. Standard Grading Rules of the North- eastern Lumber Manufacturers	2303	Standard Test Methods for Evaluating the Properties of Wood-Based Fiber and Particle Panel Materials.  D 1037-91 of the ASTM.	2303
Association, Inc. (1994).  Structural Glued-laminated Timber.  ANSI/AITC A190.1-1992, American  National Standards Institute/American	2303	Standard Test Method for Determining Formaldehyde Levels from Wood-Based Products Under Defined Test Conditions Using a Large Chamber. D 1333-90 of the ASTM.	2303
Institute of Timber Construction. D 3737-89a of the ASTM. Structural Glued-laminated Timbers: Softwood		Design Values for Structural Glued-laminated Timber. Determination of Design Values for Structural	2303
and Hardwood Species. Standard Specifications for Structural Glued-laminated Timber of Softwood	2303	Glued-laminated Timber ASTM D 3737-89a, AITC 500-91, American Institute of Timber Construction.	2202
Species, 117-93-Manufacturing, and 117-93-Design, American Institute of Timber Construction, and Standard Specifications for Hardwood Glued-laminated Timber (1985), American Institute of Timber Construction.		Prefabricated Wood I-Joists. Standard Specification for Establishing and Monitoring Structural Capacities of Prefabricated Wood I-Joists. D 5055-90 of ASTM.	2303
Preservative Treatment by Pressure Processes and Quality Control Standards. C1-90, C2-90, C3-90, C4-90, C9-90, C14-90, C15-91, C16-91, C22-91, C23-84, C24-86, C28-90 and M4-90,	2303	Visually Graded Dimension Lumber. Establishing Allowable Properties for Visually-graded Dimension Lumber from In-Grade Tests of Full-size Specimens. D 1990-91 of the ASTM.	2303
of the American Wood Preservers Association. Wood Poles.	2303	Establishing Structural Grades and Related Allowable Properties for Visually Graded Lumber.	2303
ANSI 05.1-1972 of the American National Standards Institute, Inc.		D 245-88 of the ASTM. Standard Test Methods for Establishing	2202
Round Timber Piles. D 25-87 of the ASTM.	2303	Clear Wood Strength Values. D 2555-95 of the ASTM.	2303
Adhesives. D 2559-76 of the ASTM	2303	ANSI/TPI 1 National Design Standard for Metal Plate Connected Wood Truss Construction ANSI/TPI 2 Standard for Testing Performance for	2303
AFG-01 September 1974 American Plywood Association.		ANSI/TPI 2 Standard for Testing Performance for Metal Plate Connected Wood Trusses	2303
Exterior (Wet Use) and Interior (Dry Use). Standard Specification for Adhesives	2303	ASCE 16, Load and Resistance Factor Design Standard for Engineered Wood Construction CHAPTER 25	2303
for Structural Laminated Wood Products for Use Under Exterior (Wet Use) Exposure Conditions. D 2559-92 of the ASTM.		Plaster Bonding Agents. United States Government Military Specification MIL-B-19235 (Docks) December 12, 1965; the 1965 Edition of Standard Specifications of	2502
Test for Glue Joints in Laminated Wood Product.	2303	the California Lathing and Plastering Contractors Association, and the	
D 1101-92 of the ASTM. Standard Test Methods for Integrity of		Recommendations of the Gypsum Association.	
Glue Joints in Structural Glued-laminated Wood Products for Exterior Use. Inspection Manual, AITC 200-92, of the		Adhesives for Fastening Gypsum Wallboard to Wood Framing. C 557-73 of the ASTM.	2502
American Institute of Timber Construction referenced in American National Standard ANSI/AITC A190.1-92 and Standard		Perlite, Vermiculite and Sand Aggregates for Gypsum Plaster. C 35-70 of the ASTM.	2502
Method of Testing. D 905-49 (R81) of the ASTM.	2303	Metal Lath, Wire Lath, Wire Fabric Lath and Metal Accessories.	2502
Cellulosic Fiberboard. American National Standard ANSI/AHA A194.1—1985.	2303	Standard Specification A 42.4-1955 of the ANSI and Specification 2.6.73 of the California Lathing and Plastering	
Hardboard Siding. American National Standard ANSI/AHA	2303	Contractors Association.  Exterior Gypsum Soffit Board.	2502
A135.6—1989.		C 931-91 of the ASTM.	2502

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Airborne Sound Insulation Field Test. Appendix 1208.1 E 336-84 of the ASTM.

#### **APPENDIX CHAPTER 33**

Moisture-Density Relations of Soils and Soil Aggregate Mixtures. Appendix 3305 D 1557-78 of the ASTM. In Place Density of Soils by the Sand Cone Method. Appendix 3305 D 1556-82 of the ASTM. In Place Density of Soils by the Rubber-Balloon Method. Appendix 3305 D 2167-66 (1977) of the ASTM. In Place Density of Soil by the Drive-Cylinder Method. Appendix 3305 D 2937-71 (1976) of the ASTM. In Place Moisture Content and Density of Soils by Nuclear Methods. Appendix 3305 D 2922-81 and D 3017-78 of the ASTM.

#### 3504.1 [For SFM] California Building Code Standards.

UBC Standard	It shall be construed to mean:
9-1	NFPA 13
9-2	NFPA 14
9-3	NFPA 13R

# 3504.1.2 [For SFM] California State Fire Marshal Standards are found in the California Code of Regulations, Title 24, Part 12.

2.
SFM 12-3, Releasing Systems for Security Bars in Dwellings
SFM 12-4-1, Smoke or Heat Ventilators

 $SFM\,12\text{-}7\text{-}1, Fire\,Tests\,of\,Building\,Construction\,and\,Materials$ 

SFM 12-7-2, Fire Dampers

SFM 12-7-3, Fire-testing Furnaces

SFM 12-7A-1, Exterior Wall Siding and Sheathing, Direct Flame Exposure

SFM 12-7A-2, Exterior Window, Direct Flame Exposure

SFM 12-7A-3, Unloaded Deck, Direct Flame Exposure

SFM 12-7A-4, Unloaded Deck, Burning Brand Exposure

SFM 12-7-4, Fire Door Assembly Tests

SFM 12-8-100, Room Fire Tests for Wall and Ceiling Materials

SFM 12-8-1A, Calculation of the Total Rate of Heat and Carbon Monoxide or Carbon Dioxide Production

SFM 12-8-1B, Mounting Techniques for Wall and Ceiling Interior Finish Material

SFM 12-10-1, Power Operated Exit Doors

SFM 12-10-2, Single Point Latching or Locking Devices

SFM 12-10-3, Emergency Exit and Panic Hardware

SFM 12-72-1, Protective Signaling Systems

SFM 12-72-2, Single and Multiple Station Fire Alarm Devices

SFM 12-73-3, Smoke Detectors, Combustion Products Type

#### 3504.1.3 [For SFM] National Standards.

- 1. NFPA 11, 2002 Edition, Low-Medium-High Expansion Foams.
- 2. NFPA 11A, 1999 Edition, Medium- and High-Expansion Foam Systems.
- 3. NFPA 12, 2000 Edition, Carbon Dioxide Extinguishing Systems.

E 492-77 of the ASTM.

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- 4. NFPA 12A, 1997 Edition, Halon 1301 Fire Extinguishing Systems.
- 5. NFPA 13, 2002 Edition, The Installation of Sprinkler Systems, as amended.
- 6. NFPA 13D, 2002 Edition, Installation of Sprinkler Systems in One-and Two-Family Dwellings and Manufactured Homes.
- 7. NFPA 13R, 2002 Edition, Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height.
- 8. NFPA 14, 2003 Edition, Installation of Standpipe and Hose Systems.
- 9. NFPA 15, 2001 Edition, Water Spray Fixed Systems for Fire Protection.
- 10. NFPA 16, 1999 Edition, Installation of Deluge, Foam-Water Sprinkler and Foam-Water Spray Systems.
- 11. NFPA 17, 2002 Edition, Dry Chemical Extinguishing Systems.
- 12. NFPA 17A, 2002 Edition, Wet Chemical Extinguishing Systems.
- 13. NFPA 20, 1999 Edition, Installation of Stationary Pumps for Fire Protection.
- 14. NFPA 22, 2003 Edition, Water Tanks for Private Fire Protection.
- 15. NFPA 24, 2002 Edition, Installation of Private Fire Service Mains and Their Appurtenances.
- 16. NFPA 37, 2002 Edition, Installation and Use of Stationary Combustion Engines and Gas Turbines.
- 17. NFPA 50, 2001 Edition, Bulk Oxygen Systems at Consumer Sites
- 18. NFPA 52, 2002 Edition, Compressed Natural Gas (CNG) Vehicular Fuel Systems Code.
- 19. NFPA 57, 2002 Edition, Liquefied Natural Gas (LNG) Vehicular Fuel Systems Code.
  - 20. NFPA 54, 2002 Edition, National Fuel Gas Code.
- 21. NFPA 58, 2001 Edition, Standard for the Storage and Handling of Liquefied Petroleum Gases.
- 22. NFPA 72, 2002 Edition, National Fire Alarm Code, as amended.
- 23. NFPA 92 A, 2000 Edition, Recommended Practice for Smoke-Control Systems.
  - 24. NFPA 99, 2002 Edition, Health Care Facilities
- 25. NFPA 253, 2000 Edition, Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source.
- 26. NFPA 2001, 2000 Edition, Clean Agent Fire Extinguishing Systems.
- 27. UL 13, Power-limited Circuit Cables, Second Edition, February 29, 1996.
- 28. UL 38, Manually Actuated Signaling Boxes, Seventh Edition, March 26, 1999, with revisions through June 12, 2001.
- 29. UL 193, Alarm Valves for Fire-Protection Service, Tenth Edition, January 12, 2004.
- 30. UL 199, Automatic Sprinklers for Fire Protection Service, Edition
- 31. UL 199 E Fire Test of Sprinklers and Water Spray Nozzles for the Protection of Deep Fat Fryers, May 2004.

- 32. UL 217, Single- and Multiple-Station Smoke Alarm, Fifth Edition, February 21, 1997 with revisions through June 15, 2004.
- 33. UL 228, Door Closers/Holders, with or without Integral Smoke Detectors, Fourth Edition, April 29, 1997, with revisions through January 21, 1999.
- 34. UL 260, Dry Pipe and Deluge Valves for Fire Protection Service, Seventh Edition, March 17, 2004.
- 35. UL 262, Gate Valves for Fire Protection Service, Eighth Edition, February 26, 2004.
- 36. UL 268, Smoke Detectors for Fire Protective Signaling Systems, Fourth Edition, December 30, 1996, with revisions through October 22, 2003.
- 37. UL 268A, Smoke Detectors for Duct Application, Third Edition, May 15, 1998 with revisions through April 10, 2003.
- 38. UL 312, Check Valves for Fire-Protection Service, Ninth Edition, January 8, 2004.
- 39. UL 346, Waterflow Indicators for Fire Protective Signaling Systems, Fourth Edition, May 27, 1994.
- 40. UL 464, Audible Signal Appliances, Eighth Edition, April 28, 2003, with revisions through October 10, 2003.
- 41. UL 497B, Protectors for Data Communication and Fire Alarm Circuits, Fourth Edition, June 14, 2004.
- 42. UL 521, Heat Detectors for Fire Protective Signaling Systems, Seventh Edition, February 19, 1999 with revisions through October 3, 2002.
- 43. UL 539, Single- and Multiple-Station Heat Detectors, Fifth Edition, January 21, 2000.
- 44. UL 632, Electrically Actuated Transmitters, Seventh Edition, March 29, 2000.
- 45. UL 753, Alarm Accessories for Automatic Water Supply Valves for Fire Protection Service, Ninth Edition, May 7, 2004.
- 46. UL 813, Commercial Audio Equipment, Seventh Edition, December 13, 1996, with revisions through December 7, 1999.
- 47. UL 864, Control Units for Fire Protective Signaling Systems, as amended, Ninth Edition, September 30, 2003 with revisions through October 29, 2003.
- 48. UL 884, Underfloor Electric Raceways and Fittings, Tenth Edition, 1987, November 30, 1998.
- 49. UL 913, Intrinsically Safe Apparatus for Use in Class I, II, and III, Division 1, Hazardous Locations, Sixth Edition, August 8, 2002.
- 50. UL 916, Energy Management Equipment, Third Edition, December 23, 1998 with revisions through February 10, 2004.
- 51. UL 924, Emergency Lighting and Power Equipment, Eighth Edition, March 29, 1995 with revisions through and including July 11, 2001.
- 52. UL 985, Household Fire Warning System Units, Fifth Edition, May 26, 2000 with revisions through April 29, 2004.
- 53. UL 1091, Butterfly Valves for Fire Protection Service, Sixth Edition, June 3, 2004.
- 54. UL 1424, Cables for Power-limited Fire Protective Signaling Circuits, Second Edition, April 29, 1996.
- 55. UL 1480, Speakers for Fire Protective Signaling Systems, Fifth Edition, January 31, 2003.
- 56. UL 1481, Power Supplies for Fire Protective Signaling Systems, Fourth Edition, April 9, 1999.

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- 57. UL 1626 Residential Sprinklers for Fire Protection Service, 1.2 revised September 6, 2000.
- 58. UL 1711, Amplifiers for Fire Protective Signaling Systems, Third Edition, February 18, 1999.
- 59. UL 1730, Smoke Detector Monitors and Accessories (annunciators) for Individual Living Units of Multifamily Residences and Hotel/Motel Rooms, Third Edition, September 18, 1998, with revisions through May 17, 1999.
- 60. UL 1971, Signaling Devices for the Hearing Impaired, Third Edition, November 29, 2002, with revisions through May 3, 2004.
- 61. UL 1484, Residential Gas Detectors, Fourth Edition, December 28, 2000.
- 62. UL 1994, Low Level Path Marking and Lighting Systems, Third Edition, January 30, 2004.
- 63. UL 2034, Single and Multiple Station Carbon Monoxide Alarms, Second Edition, October 29, 1996, with revisions through June 28, 2002.
- 64. UL 2079, Tests for Fire Resistance of Building Joint Systems, Third Edition, July 31, 1998 as amended.
- 65. FM Class No. 3260, Radiant Energy-Sensing Fire Detectors for Automatic Fire Alarm Signaling, August 2000 Edition.
- 3504.2 [For DSA/AC] Division of the State Architect, Access Compliance Standards
- 3504.2.1 American National Standards Institute (ANSI) 17.1-86.

**NOTES:** 1. DSA/AC adopts ANSI17.1-86 by reference for the specific scope of application for which DSA/AC is responsible for enforce-

- ment, and the specific statutory authority of DSA/AC to adopt and enforce such provisions of building standards per 101.17.11.
- 2. The Division of the State Architect, Access Compliance Standards referencing ANSI 17.1-86 are also referenced in Title 24, Part 12.

## 3504.2.2 American Society of Mechanical Engineers (ASME 17.1-90).

- **NOTES:** 1. DSA/AC adopts ASME 17.1-90 by reference for the specific scope of application for which DSA/AC is responsible for enforcement, and the specific statutory authority of DSA/AC to adopt and enforce such provisions of building standards per 101.17.11.
- 2. The Division of the State Architect, Access Compliance Standards referencing ASME 17.1-90 are also referenced in Title 24, Part 12.

## SECTION 3505 — AMENDMENTS TO NATIONAL STANDARDS

3505.1 [For SFM] NFPA 72, 2002 Edition.

Add a definition of "central control station" as follows:

CENTRAL CONTROL STATION is a central control station for fire department operations as referred to in the California Building Code and California Fire Code. (See also FIRE COM-MAND CENTER.)

#### Amend Section 4.4.4.4, as follows:

Sec. 4.4.4.4 Wiring. The installation of all wiring, cable and equipment shall be in accordance with the California Electrical Code, and specifically with Article 760, Article 770 and Article 800, where applicable. Optical Fiber Cables shall be protected against mechanical injury in accordance with Article 760.

#### 2-1 Introduction.

2-1.1\* Scope. This chapter contains minimum requirements for the selection, installation, operation and maintenance of fire

(Text continues on page 1-308.3.)

warning equipment for use within family living units. The requirements of the other chapters shall not apply.

EXCEPTION: Where specifically indicated.

## 2-1.2 Purpose.

- **2-1.2.1** Household fire warning systems shall be designed and installed to provide sufficient warning of a fire to enable occupants to escape. It is recognized that household fire warning systems might not be of material assistance to all occupants, such as persons intimate with the ignition of a fire.
- **2-1.2.2** This chapter is primarily concerned with life safety, not with protection of property. It presumes that a family has an exit plan.

#### 2-1.3 General.

- **2-1.3.1** A control and associated equipment, a multiple of single station alarm(s), or any combination thereof shall be permitted to be used as a household fire warning system, provided the requirements of 2-1.3.7 are met.
- **2-1.3.2** Detection and alarm systems for use within the protected household are covered by this chapter.
- **2-1.3.3** Supplementary functions, including the extension of an alarm beyond the household, shall be permitted and shall not interfere with the performance requirements of this chapter.
- **2-1.3.4** Where the authority having jurisdiction requires a household fire warning system to comply with the requirements of Chapter 4 or any other chapters of this code, the requirements of Section 2-2 shall still apply.
- **2-1.3.5** The definitions of Section 1-4 shall apply.
- **2-1.3.6** This chapter does not exclude the use of fire alarm systems complying with other chapters of this code in household applications, provided all of the requirements of this chapter are met or exceeded.
- **2-1.3.7** All devices, combinations of devices and equipment to be installed in conformity with this chapter shall be approved or listed for the purposes for which they are intended.
- **2-1.3.8** A device or system of devices having materials or forms that differ from those detailed in this chapter shall be permitted to be examined and tested according to the intent of the chapter and, if found equivalent, shall be permitted to be approved.
- 2-1.3.9 Equivalency. Nothing in this code is intended to prevent the use of systems, methods, or devices of equivalent or superior quality, strength, fire resistance, effectiveness, durability and safety over those prescribed by this code, provided technical documentation is submitted to the authority having jurisdiction to demonstrate equivalency and the system, method or device is approved for the intended purpose.

#### 2-2 Basic Requirements.

## 2-2.1 Required Protection.

- 2-2.1.1\* This code requires the following detectors within the family living unit.
- 2-2.1.1.1 Smoke alarms shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms and on each additional story of the family living unit, including basements and excluding crawl spaces and unfinished attics. In new construction, a smoke alarm also shall be installed in each sleeping room.

2-2.1.1.2\* For family living units with one or more split levels (i.e., adjacent levels with less than one full story separation between levels), a smoke alarm required by 2-2.1.1.1 shall be permitted for an adjacent lower level, including basements. (See Figure A-2-2.1.1.2.)

**EXCEPTION:** Where there is an intervening door between one level and the adjacent level, a smoke alarm shall be installed on the lower level.

- 2-2.1.1.3 Automatic sprinkler systems provided in accordance with NFPA 13D, Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes, or NFPA 13R, Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height, shall be interconnected to sound alarm notification appliances throughout the dwelling where a fire warning system is provided.
- 2-2.2\* Alarm Notification Appliances. Each automatic alarminitiating device shall cause the operation of an alarm that shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed. The tests of audibility level shall be conducted with all household equipment that might be in operation at night in full operation.

Examples of such equipment are window air conditioners and room humidifiers. (See A-2-2.2 for additional information.

**2-2.2.1** In new construction, where more than one smoke alarm is required by 2-2.1, smoke alarm shall be arranged so that operation of any smoke alarm causes all smoke alarms within the dwelling to sound.

**EXCEPTION:** Configurations that provide equivalent distribution of the alarm signal.

- 2-2.2.2\* Standard Signal. Newly installed alarm notification appliances used with a household fire warning system and single and multiple station smoke alarms shall produce the audible emergency evacuation signal described in ANSI S3.41, Audible Emergency Evacuation Signal. Signals from different notification appliances shall not be required to be synchronized.
- 2-2.3 Alarm Notification Appliances for the Hearing Impaired. In a household occupied by one or more hearing impaired persons, each initiating device shall cause the operation of a visible alarm signal(s) in accordance with 2-4.4.2. Since hearing deficits are often not apparent, the responsibility for advising the appropriate persons shall be that of the hearing impaired party. The responsibility for compliance shall be that of the occupants of the family living unit.

**EXCEPTION:** A listed tactile signal shall be permitted to be employed.

## 2-3 Power Supplies.

## 2-3.1 General.

- **2-3.1.1** All power supplies shall have sufficient capacity to operate the alarm signal(s) for at least 4 continuous minutes.
- **2-3.1.2** There shall be a primary (main) and a secondary (standby) power source. For electrically powered household fire warning equipment, the primary (main) power source shall be ac; the secondary (standby) power source shall be a battery.

**EXCEPTIONS:** 1. Where the primary (main) power source is an emergency circuit or a legally required standby circuit capable of operating the system for at least 24 hours in the normal condition, followed by not less than 4 minutes of alarm, a secondary (standby) source shall not be required.

2. Where the primary (main) power source is a circuit of an optional standby system capable of operating the system for at least 24 hours, followed by not less than 4 minutes of alarm, that meets the require-

- ments for either an emergency system or a legally required standby system as defined in NFPA 70, National Electrical Code, Articles 700 and 701, respectively, a secondary (standby) supply shall not be required.
- 3. Detectors and alarms powered from a monitored dc circuit of a control unit where power for the control unit meets the requirements of Section 2-3 and the circuit remains operable upon loss of primary (main) ac power.
- 4. A detector and a wireless transmitter that serves only that detector shall be permitted to be powered from a monitored battery primary (main) source where part of a listed, monitored low power radio (wireless) system. A secondary (standby) source shall not be required.
- 5. In existing construction, either an ac primary power source, as described in 2-3.2, or a monitored battery primary (main) power source, as described in 2-3.3, shall be permitted. A secondary (standby) source shall not be required.
  - 6. Visible notification appliances required by 2-4.4.2.
- 7. Where the primary (main) power source is non-electrical, a secondary (standby) source shall not be required. The requirements of 2-3.5 shall apply.

## 2-3.2 Primary Power Supply—AC.

- **2-3.2.1** An ac primary (main) power source shall be a dependable commercial light and power supply source. A visible "power on" indicator shall be provided.
- 2-3.2.2 All electrical systems designed to be installed by other than a qualified electrician shall be powered from a source not in excess of 30 volts that meets the requirements for power limited fire alarm circuits as defined in NFPA 70, National Electrical Code, Article 760.
- **2-3.2.3** A restraining means shall be used at the plug-in of any cord-connected installation.
- **2-3.2.4** AC primary (main) power shall be supplied either from a dedicated branch circuit or the unswitched portion of a branch circuit also used for power and lighting. Operation of a switch (other than a circuit breaker) or a ground-fault circuit-interrupter shall not cause loss of primary (main) power.
  - **EXCEPTIONS:** 1. Single or multiple station alarms with a supervised rechargeable standby battery that provides at least 4 months of operation with a fully charged battery.
  - 2. Where a ground-fault circuit-interrupter serves all electrical circuits within the household.
- 2-3.2.5 Neither loss nor restoration of primary (main) power shall cause an alarm signal.
  - $\label{lem:exception:exception} \textbf{EXCEPTION:} An alarm signal shall be permitted within the household but shall not exceed 2 seconds.$
- **2-3.2.6** Where a secondary (standby) battery is provided, the primary (main) power supply shall be of sufficient capacity to operate the system under all conditions of loading with any secondary (standby) battery disconnected or fully discharged.
- **2-3.3** Primary Power Supply—Monitored Battery. Household fire warning equipment shall be permitted to be powered by a battery, provided that the battery is monitored to ensure that the following conditions are met:
- (a) All power requirements are met for at least 1 year of battery life, including monthly testing.
- (b) A distinctive audible trouble signal sounds before the battery is incapable of operating (from causes such as aging or terminal corrosion) the device(s) for alarm purposes.
- (c) For a unit employing a lock-in alarm feature, automatic transfer is provided from alarm to a trouble condition.

- (d) The unit is capable of producing an alarm signal for at least 4 minutes at the battery voltage at which a trouble signal is normally obtained, followed by not less than 7 days of trouble signal operation.
- (e) The audible trouble signal is produced at least once every minute for 7 consecutive days.
- (f) Acceptable replacement batteries are clearly identified by the manufacturer's name and model number on the unit near the battery compartment.
- (g) A readily noticeable, visible indication is displayed when a primary battery is removed from the unit.
- (h) Any unit that uses a nonrechargeable battery as a primary power supply that is capable of a 10-year or greater service life, including testing, and meets the requirements of 2-3.3 (b) through (e) shall not be required to have a replaceable battery.

## 2-3.4 Secondary (Standby) Power Supply.

- **2-3.4.1** Removal or disconnection of a battery used as a secondary (standby) power source shall cause a distinctive audible or visible trouble signal.
- 2-3.4.2 Acceptable replacement batteries shall be clearly identified by manufacturer's name and model number on the unit near the battery compartment.
- **2-3.4.3** Where required by law for disposal reasons, rechargeable batteries shall be removable.

#### 2-3.4.4 Automatic Recharging.

- **2-3.4.4.1** Automatic recharging shall be provided where a rechargeable battery is used as the secondary (standby) supply. The supply shall be capable of operating the system for at least 24 hours in the normal condition, followed by not less than 4 minutes of alarm. Loss of the secondary (standby) source shall sound an audible trouble signal at least once every minute.
- **2-3.4.4.2** The battery shall be recharged within 4 hours where power is provided from a circuit that can be switched on or off by means other than a circuit breaker, or within 48 hours where power is provided from a circuit that cannot be switched on or off by means other than a circuit breaker.
- 2-3.4.5 Where automatic recharging is not provided, the battery shall be monitored to ensure that the following conditions are met:
- (a) All power requirements are met for at least 1 year of battery life.
- (b) A distinctive audible trouble signal sounds before the battery capacity has been depleted below the level required to produce an alarm signal for 4 minutes.
- 2-3.5 Primary Power—Nonelectrical. A suitable spring-wound mechanism shall provide power for the nonelectrical portion of a listed signal station alarm. A visible indication shall be provided to show that sufficient operating power is not available.

#### 2-4 Equipment Performance.

- **2-4.1** General. The failure of any nonreliable or short-life component that renders the detector inoperable shall be readily apparent to the occupant of the living unit without the need for test.
- 2-4.2 Smoke Alarms and Smoke Detectors. Each smoke alarm and smoke detector shall detect abnormal quantities of smoke that can occur in a dwelling, shall properly operate in the normal environmental conditions of a household and shall be in compliance with ANS/UL 268, Standard for Safety Smoke Detectors for Fire Protective Signaling Systems, or ANS/UL 217, Standard for Safety Single and Multiple Station Smoke Alarms.

**2-4.2.1** The alarm verification feature shall not be used for household fire warning equipment.

#### 2-4.3\* Heat Alarms and Heat Detectors.

- 2-4.3.1 Each heat detector, including a heat detector integrally mounted on a smoke detector, shall detect abnormally high temperature or rate-of-temperature rise, and all such detectors shall be listed for not less than 50-ft (15-m) spacing.
- **2-4.3.2** Fixed temperature detectors shall have a temperature rating at least 25 °F (13 °C) above the normal ambient temperature and shall not be rated 50 °F (28 °C) higher than the maximum anticipated ambient temperature in the room or space where installed.

## 2-4.4 Alarm Signaling Intensity.

**2-4.4.1** All alarm-sounding appliances shall have a minimum rating of 85 dBA at 10 ft (3 m).

**EXCEPTION:** An additional sounding appliance intended for use in the same room as the user, such as a bedroom, may have a sound pressure level as low as 75 dBA at 10 ft (3 m).

2-4.4.2 Visible notification appliances used in rooms where a hearing impaired person(s) sleeps shall have a minimum rating of 177 candela for a maximum room size of 14 ft by 16 ft (4.27 m by 4.88 m). For larger rooms, the visible notification appliance shall be located within 16 ft (4.88 m) of the pillow. Visible notification appliances in other areas shall have a minimum rating of 15 candela.

**EXCEPTION:** Where a visible notification appliance in a sleeping room is mounted more than 24 in. (610 mm) below the ceiling, a minimum rating of 110 candela shall be permitted.

#### 2-4.5 Control Equipment.

- **2-4.5.1** The control equipment shall be automatically restoring upon restoration of electrical power.
- **2-4.5.2** The control equipment shall be of a type that "locks in" on an alarm condition. Smoke detection circuits shall not be required to lock in.
- **2-4.5.3** If a reset switch is provided, it shall be of a self-restoring type.
- **2-4.5.4** An alarm-silencing switch or an audible trouble-silencing switch shall not be required to be provided.

**EXCEPTION:** Where the switch's silenced position is indicated by a readily apparent signal.

- 2-4.5.5 Each electrical fire warning system and each single station smoke detector shall have an integral test means to allow the householder to check the system and the sensitivity of the detector(s).
- 2-4.6 Monitoring Integrity of Installation Conductors. All means of interconnecting initiating devices or notification appliances shall be monitored for the integrity of the interconnecting pathways up to the connections to the device or appliance so that the occurrence of a single open or single ground fault, which prevents normal operation of the system, is indicated by a distinctive trouble signal.

**EXCEPTIONS:** 1. Conductors connecting multiple station alarms, provided a single fault on the wiring cannot prevent single station operation of any of the interconnected detectors.

2. Circuits extending from single or multiple station alarms to required remote notification appliances, provided operation of the test feature on any detector causes all connected appliances to activate.

#### 2-4.7 Combination System.

- 2-4.7.1 Where common wiring is employed for a combination system, the equipment for other than the fire warning signaling system shall be connected to the common wiring of the system so that short circuits, open circuits, grounds, or any fault in this equipment or interconnection between this equipment and the fire warning system wiring does not interfere with the supervision of the fire warning system or prevent alarm or trouble signal operation.
- **2-4.7.2** *In a fire-burglar system, the operation shall be as follows:*
- (a) A fire alarm signal shall take precedence or be clearly recognizable over any other signal even when the non-fire alarm signal is initiated first.
- (b) Distinctive alarm signals shall be used so that fire alarms can be distinguished from other functions such as burglar alarms. The use of a common sounding appliance for fire and burglar alarms shall be permitted where distinctive signals are used. (See 2-2.2.2.)
- **2-4.8** Low Power Wireless Systems. Household fire warning systems utilizing low power wireless transmission of signals within the protected household shall comply with the requirements of Section 3-13.

EXCEPTION: Paragraph 3-13.4.5 shall not apply.

## 2-4.9 Supervising Station Systems.

**2-4.9.1** Any communications method described in Section 4-5 shall be permitted for transmission of signals from household fire warning equipment to a supervising station. All of the provisions of Section 4-5 shall apply, as appropriate.

**EXCEPTIONS:** 1. Only one telephone line shall be required for one- and two-family residences.

- 2. Each DACT shall be required to be programmed to call a single DACR number only.
- 3. Each DACT serving a one- or two-family residence shall transmit a test signal to its associated receiver at least monthly.
- **2-4.9.2\*** On receipt of an alarm signal from household fire warning equipment, the supervising station shall immediately (within 90 seconds) retransmit the alarm to the public fire communications center.

**EXCEPTION:** The supervising station shall be permitted to contact the residence for verification of an alarm condition and, where acceptable assurance is provided within 90 seconds that the fire service is not needed, retransmission of an alarm to the public service fire communications center shall not be required.

## 2-5 Installation.

## 2-5.1 General.

#### 2-5.1.1 General Provisions.

- 2-5.1.1.1\* All equipment shall be installed in a workmanlike manner.
- **2-5.1.1.2** All devices shall be so located and mounted that accidental operation is not caused by jarring or vibration.
- **2-5.1.1.3** All installed household fire warning equipment shall be mounted so as to be supported independently of its attachment to wires.
- **2-5.1.1.4** All equipment shall be restored to normal as promptly as possible after each alarm or test.
- **2-5.1.1.5** The supplier or installing contractor shall provide the owner with:

- (a) An instruction booklet illustrating typical installation layouts.
- (b) Instruction charts describing the operation, method and frequency of testing, and proper maintenance of household fire warning equipment.
- (c) Printed information for establishing a household emergency evacuation plan.
- (d) Printed information to inform owners where they can obtain repair or replacement service, and where and how parts requiring regular replacement (such as batteries or bulbs) can be obtained within 2 weeks.

# 2-5.1.2 Interconnection of Detectors or Multiple Station Alarms.

- (a) Where the interconnected wiring is unsupervised, no more than 18 multiple station alarms shall be interconnected in a multiple station configuration.
- (b) Where the interconnecting wiring is supervised, the number of interconnected detectors shall be limited to 64.
- **2-5.1.2.1** Interconnection that causes other alarms to sound shall be limited to an individual family living unit. Remote annunciation from single or multiple station alarms shall be permitted.
- **2-5.1.2.2** No more than 12 smoke alarms shall be interconnected in a multiple station connection. The remainder of the alarms shall be permitted to be of other types.
- 2-5.2\* Alarm and Detector Location and Spacing.
- 2-5.2.1 Smoke Alarms and Smoke Detectors.
- **2-5.2.1.1** Smoke alarms and smoke detectors in rooms with ceiling slopes greater than 1 ft in 8 ft (1 m in 8 m) horizontally shall be located at the high side of the room.
- 2-5.2.1.2 Smoke alarms and smoke detectors installed in a stairwell shall be so located as to ensure that smoke rising in the stairwell cannot be prevented from reaching the detector by an intervening door or obstruction.
- **2-5.2.1.3** Smoke alarms and smoke detectors installed to detect a fire in the basement shall be located in close proximity to the stairway leading to the floor above.
- **2-5.2.1.4** Smoke alarms and smoke detectors installed to comply with 2-2.1.1.1 on a story without a separate sleeping area shall be located in close proximity to the stairway leading to the floor above.
- 2-5.2.1.5 Smoke alarms and smoke detectors shall be mounted on the ceiling at least 4 in (102 mm) from a wall or on a wall with the top of the detector not less than 4 in. (102 mm) nor more than 12 in. (305 mm) below the ceiling.

EXCEPTION: Where the mounting surface might become considerably warmer or cooler than the room, such as a poorly insulated ceiling below an unfinished attic or an exterior wall, the detectors shall be mounted on an inside wall.

- **2-5.2.1.6** Smoke alarms and smoke detectors shall not be located within kitchens or garages, or in other spaces where temperatures can fall below 40 °F (4 °C) or exceed 100 °F (38 °C). Smoke detectors shall not be located closer than 3 ft (0.9 m) horizontally from:
  - (a) The door to a kitchen.
  - (b) The door to a bathroom containing a tub or shower.
- (c) The supply registers of a forced air heating or cooling system, and outside of the airflow from those registers.

**EXCEPTION:** Detectors specifically listed for the application.

#### 2-5.2.2\* Heat Detectors Heat Alarms.

- 2-5.2.2.1 On smooth ceilings, heat detectors shall be installed within the strict limitations of their listed spacing.
- 2-5.2.2.2 For sloped ceilings having a rise greater than 1 ft in 8 ft (1 m in 8 m) horizontally, the detector shall be located on or near the ceiling at or within 3 ft (0.9 m) of the peak. The spacing of additional detectors, if any, shall be based on a horizontal distance measurement, not on a measurement along the slope of the ceiling.
- 2-5.2.2.3\* Heat detectors and heat alarms shall be mounted on the ceiling at least 4 in. (102 mm) from a wall or on a wall with the top of the detector not less than 4 in. (102 mm) nor more than 12 in. (305 mm) below the ceiling.

**EXCEPTION:** Where the mounting surface might become considerably warmer or cooler than the room, such as a poorly insulated ceiling below an unfinished attic or an exterior wall, the detectors shall be mounted on an inside wall.

- 2-5.2.2.4 In rooms with open joists or beams, all ceiling-mounted detectors shall be located on the bottom of such joists or beams.
- **2-5.2.2.5\*** Detectors installed on an open-joisted ceiling shall have their smooth ceiling spacing reduced where this spacing is measured at right angles to solid joists; in the case of heat detectors, this spacing shall not exceed  $\frac{1}{2}$  of the listed spacing.
- **2-5.3 Wiring and Equipment.** The installation of wiring and equipment shall be in accordance with the requirements of NFPA 70, National Electrical Code, Article 760.

#### 2-6 Maintenance and Tests.

**2-6.1\* Maintenance.** Where batteries are used as a source of energy, they shall be replaced in accordance with the recommendations of the alarm equipment manufacturer.

EXCEPTION: Batteries described in 2-3.3 (h).

#### 2-6.2\* Tests.

- **2-6.2.1** Single and Multiple Station Smoke Alarms. Homeowners shall inspect and test smoke alarms and all connected appliances in accordance with the manufacturer's instructions at least monthly.
- **2-6.2.2 Fire Alarm Systems.** Homeowners shall test systems in accordance with the manufacturer's instructions and shall have every household fire alarm system having a control panel tested by a qualified service technician at least every 3 years. This test shall be conducted according to the methods of Chapter 7.
- 2-7 Markings and Instructions. All household fire warning equipment or systems shall be plainly marked with the following information on the unit:
- (a) Manufacturer's or listee's name, address and model number:
- (b) A mark or certification that the unit has been approved or listed by a testing laboratory;
  - (c) Electrical rating (where applicable);
  - (d) Temperature rating (where applicable);
  - (e) Spacing rating (where applicable);
  - (f) Operating instructions;
  - (g) Test instructions.
  - (h) Maintenance instructions;
  - (i) Replacement and service instructions.

**EXCEPTION:** Where space limitations prohibit inclusion of 2-7 (g), (h) and (i), a label or plaque suitable for permanent attachment

within the living unit, or a manufacturer's manual, shall be provided with the equipment and referenced on the equipment. In the case of a household fire warning system, the required information shall be prominently displayed at the control panel.

## Add a Section 5.12.4 as follows:

Sec. 5.12.4 Each manual fire alarm box shall be securely mounted. The operable part of each manual fire alarm box shall be not less than  $3^{1}/_{2}$  ft (1.1 m) and not more than 4 ft (1.22 m) above floor level.

## Add a Section 5.12.8 as follows:

Sec. 5.12.8 Additional manual fire alarm boxes shall be provided so that the travel distance to the nearest fire alarm box will not be in excess of 200 ft (61 m) measured horizontally on the same floor.

**EXCEPTION:** When individual dwelling units are served by a single exit stairway, additional boxes at other than the ground floor may be omitted.

## Amend Section 6.4.2.2.2, Exception 4 as follows:

Exception 4: Where the installation wiring is enclosed in a 2-hour-rated cable assembly, enclosed in a 2-hour-rated enclosure, other than a stairwell or installation of listed circuit integrity (C.I.) cable, which meets or exceeds a 2-hour fire-resistance rating.

Sec. 4-4.5. Notification Appliances for the Hearing Impaired. Approved notification appliances for the hearing impaired shall be installed in the following areas:

- 1. Restrooms
- 2. Corridors
- 3. Music practice rooms
- 4. Band rooms
- 5. Gymnasiums
- 6. Multipurpose rooms
- 7. Occupational shops
- 8. Occupied rooms where ambient noise impairs hearing of the fire alarm
  - 9. Lobbies
  - 10. Meeting rooms
  - 11. Any other area for common use

**NOTE:** This section is also adopted by the Division of the State Architect, Access Compliance, for buildings not regulated by the State Fire Marshal.

The SFM does not adopt Chapter 8, of NFPA 72, 1999 edition, Fire Warning Equipment for Dwelling Units.

The SFM will maintain the use of the existing Chapter 2, Household Fire Warning Equipment of the 1996 edition of NFPA 72, as amended.

## Add a Section 6.8.5.4.1 (2) as follows:

Sec. 6.8.5.4.1 (2) A smoke detector continuously subjected to a smoke concentration above alarm threshold does not delay the system within functions of 1-5.4 by more than 30 seconds.

Amend existing Section 5-8.1.2 by adding an exception as follows:

EXCEPTION: When individual units are served by a single stairway, additional boxes at other than the ground floor may be omitted.

## Amend Sections 7.4.2.1 and 7.4.3.2 as follows:

1. Sec. 7.5.1.1. Audible notification appliances intended for operation in the public mode shall have a sound level of not less than 75dBA at 10 feet (3048 mm) or more than 110dBA at the minimum hearing distance from the audible appliance.

#### Amend Section 6.9.6.1 as follows:

Sec. 7.4.3.2. Private Mode Audible signals intended for operation in the private mode shall have a sound level of not less than 45dBA at 10 feet (3048 mm) or more than 110dBA at the minimum hearing distance from the audible appliance.

#### Amend Section 6.8.5.4 as follows:

(5) Operation of the patient room smoke detector in Group I, Division 1.1, 1.2 and 2 Occupancies shall not include any alarm verification feature.

3505.2 [For SFM] UL 864, 2003 Edition amend as follows:

Amend Figure No. 55.1 on page 129 as follows:

RETARD-RESET-RESTART PERIOD — MAXIMUM 30 SECONDS — No alarm obtained from control unit. Maximum permissible time is 30 seconds.

#### Amend Section 55.2.2 on page 128 as follows:

Where an alarm verification feature is provided, the maximum retard-reset period before an alarm signal can be confirmed and indicated at the control unit, including any control unit reset time and the power-up time for the detector to become operational for alarm, shall not exceed 30 seconds. (Balance of the section text is to remain unchanged.)

#### Add a Section 55.2.9 as follows:

Smoke detectors connected to an alarm verification feature shall not be used as releasing devices.

**EXCEPTION:** Smoke detectors which operate their releasing function immediately upon a larm actuation independent of a larm verification feature.

#### Amend Section 89.1.10 as follows:

THIS UNIT INCLUDES AN ALARM VERIFICATION FEATURE THAT WILL RESULT IN A DELAY OF THE SYSTEM ALARM SIGNAL FROM THE INDICATED CIRCUITS. THE TOTAL DELAY (CONTROL UNIT PLUS SMOKE DETECTORS) SHALL NOT EXCEED 30 SECONDS. (Balance of the section text is to remain unchanged.)

3505.3 [For SFM] NFPA 13, 2002 Edition.

#### 9.3.5.8.3

Add a sentence after the section numbers before the first sentence as follows:

Where pipe is used for sway bracing, it shall have a wall thickness of not less than Schedule 40.

#### Amend Section 9.3.5.8.11 to read:

Section 9.3.5.8.11 Materials other than pipe not specifically included in Table 9.3.5.8.9(a), 9.3.5.8.9(b) and 9.3.5.8.9(c) shall be permitted to be used if certified by a registered professional engineer to support the loads determined in accordance with the above criteria. Calculations shall be submitted where required by the authority having jurisdiction.

Section 9.3.5.9.4 is not adopted by the SFM—lag screws are not permitted.

3505.4 [For SFM] UL 2079, 1997 Edition.

#### Adopt Section 1.14 as follows:

Sec. 1.14 Paragraphs 4.5, 5.2, 6.2, 7.2 and 8.2 shall be used when specifically approved by the authority having jurisdiction. Approval shall be based upon submittal of data by the testing agency establishing correlation of small-scale to large-scale fire test results for the proprietary joint system being evaluated. Small-scale testing shall depend upon the type of joint system to be tested

#### C I A I C I A I C I A I C I A I

# SECTION 3506 — [FOR DSA/AC] CALIFORNIA STANDARDS

3506.1 [For DSA/AC] California Code of Regulations (CCR). The CCR is the official compilation, printing and publication of adoption, amendment or repeal of regulations as published by the California Building Standards Commission for Title 24 and the Office of Administrative Law for all other Titles of the CCR.

**NOTES:** 1. DSA/AC adopts the CCR by reference for the specific scope of application for which DSA/AC is responsible for enforcement, and the specific statutory authority of DSA/AC to adopt and enforce such provisions of building standards per 101.17.11.

2. The Division of the State Architect-Access Compliance California standards referencing CCR are also referenced in Title 24, Part 12.

AUTOMATIC FIRI	E SPRINKLER SYSTEM	SHEET OF
	ING CALCULATIONS CE ASSEMBLIES	ASSIGNED LOAD TABLE METHOD TABLE 4-6.4.3.5.2
PROJECT: ADDRESS:		
SPRINKLER CONTRACTOR: ADDRESS:		TELEPHONE: FAX: DESIGNER:
BRACE IDENTIFICATION NO. (TO BE U	SED ON PLANS):	
LENGTH OF SWAY BRACE:		ORIENTATION OF
DIAMETER OF SWAY BRACE:		CONNECTING SURFACE:  (TABLE 4-6.4.3.5.4)
TYPE OF BRACE:		
ANGLE OF BRACE:		THEFER (TRIBLE 4 0.4.3.3.4).
LEAST RADIUS OF GYRATION:		
L/R VALUE		LENGTH: MAX. LOAD:
MAX HORIZONTAL LOAD: (TABLE 4-6.4.3.5.3)		
		DETAILS: (INCLUDE DETAILS ON PLANS)
SEISMIC BRACE ATTACHMENTS		
STRUCTURAL ATTACHMENT FITTING	:	
MAKE	MODEL	-
PIPE ATTACHMENT FITTING:		
MAKE	MODEL	-
	SPRINKLER SYSTEM LOAD CA	LCULATION:
Ţ	WEIGHT AS DETERMINED BY THE ASS	IGNED LOAD TABLE
	LATERAL BRACE	LONGITUDINAL BRACE
DIAMETER OF MAIN		
SPACING		
	-	

1-308.8 OCTOBER 12, 2006 SUPPLEMENT

		AUTOMATIC FIRE SPRINKLER SYSTEM		SHEET	OF
		SEISMIC LOADING CALCULATIONS SWAY BRACE ASSEMBLIES	PROJEC ADDRES		
SPRINKLE ADDRESS:	R CONTRAC	TOR:	•	TELEPHONE: FAX: DESIGNER:	
BRACE IDI (TO BE US	ENTIFICATIO ED ON PLAN	ON NO. IS):		LATERAI	L BRACE JDINAL BRACE
LENGTH OF SWAY BRACE:  DIAMETER OF SWAY BRACE:				ORIENTATION OF CONNECTING SURFACE: (TABLE 4-6.4.3.5.4)	
					ABLE 4-6.4.3.5.4):
				`	DIAMETER:
		RATION:			MAX. LOAD:
MAX HOR		AD:		MAXIMUM DIS BRACES:	STANCE BETWEEN FEET
STRUCTUI MAKE PIPE ATTA	CHMENT FI	IMENT FITTING: MODEL			
		SPRINKLER SYSTEM LOAD CALCU	JLATION:	1	
DIA	TYPE	LENGTH	TOTAL	<sup>1</sup> / <sub>2</sub> WEIGHT	TOTAL WEIGHT
		TOTAL — $^{1}/_{2}$ WEIGHT OF WATER FILLED PIPE			
		WEIGHT OF FITTINGS — ADD 15%			
		TOTAL WEIGHT OF PIPE AND FITTINGS			

OCTOBER 12, 2006 SUPPLEMENT 1-308.9

(Pages 1-308.11 through 1-308.14 have been eliminated.)

1-308.10 OCTOBER 12, 2006 SUPPLEMENT

	Shear (see REINFORCED CONCRETE)	For fire protection	
	Shotcrete 1924 Slab-on-grade foundations 1815 through 1818 (Division III)	For roofs Chapter 15	_
	Slabs on grade, minimum thickness 1900.4.4	CROSS SLOPE           Definition         204	A
	Special inspection		C
	Specified compressive strength, definition 1902	CURB	
	Structural lightweight (definition)	Allowed in alley	
	Structural plain 1922 Sulfate exposure 1904.3	, ,	C
	Tests 1905.3, 1905.6	CURB CUT Definition	Ă
	Transporting and placing 1905.9, 1905.10	·	Ä
	Transporting and placing	CURB RAMP	A
	Walls 1902, 1911.10, 1914,	Definition	C
	1921.6.1, 1922.6 Water-cement ratio	<b>CURTAIN, PROSCENIUM</b>	
	Weather requirements	CURTAIN BOARDS, smoke venting	
	CONDEMNATION 102	n	
		D	
C A C	CONGREGATE LIVING HEALTH FACILITY Definition	DAMPERS (see also FIRE DAMPERS)	
С		Fireplace 3102.7.9	
	CONGREGATE RESIDENCES	DAMPPROOFING FOUNDATION	
	CONNECTIONS	WALLS 1402.4, Appendix Chapter 18	
	Bolted	DAY CARE	Ċ
	For prefabricated assemblies	Definition	A C
	In wood framing 2318	DAY-CARE HOME, LARGE FAMILY	A
	Mechanical and welded, aluminum 2002	Definition	Ã
	Resisting seismic forces on exterior panels 1632.2	DAY-CARE HOME, SMALL FAMILY	Ă
	CONSTRUCTION	Definition	A
	Fire-resistive substitution	<b>DEAD LOADS</b> , Definition 1602	
	For occupancies (see OCCUPANCIES) For types of (see TYPES OF CONSTRUCTION)	DEFLECTION CRITERIA	
	Lights required	General	
	Temporary use of streets allowed during	Interior walls	
	CONSTRUCTION INSPECTION 106.3.5	Snow load on roofs	
	CONSTRUCTION JOINTS	Water accumulation on roofs	
	In concrete	DEMOLITION 3303.9	
	In fire-resistive assemblies 706, 709.8		
	CONSTRUCTION MATERIAL	DEPARTMENT, creation of building104.1Definition205	Ċ
	Allowed in streets	DEPTH OF FOUNDATIONS	Α
	CONTROL AREA, Definition	DEPT IT OF FOUNDATIONS	
	VONTINGE AREA. DEHIIIIUH	Affects excavations 3301	
	•	Affects excavations 3301 Below frost line 1806.1	
	CONVENTIONAL LIGHT-FRAME CONSTRUCTION 2320	Below frost line	
	CONVENTIONAL LIGHT-FRAME CONSTRUCTION 2320 CORBELING (see MASONRY, corbels)	Below frost line	
	CONVENTIONAL LIGHT-FRAME CONSTRUCTION 2320 CORBELING (see MASONRY, corbels) CORNICES (see also TYPES OF CONSTRUCTION) 705, 3204	Below frost line	
	CONVENTIONAL LIGHT-FRAME CONSTRUCTION 2320 CORBELING (see MASONRY, corbels) CORNICES (see also TYPES OF CONSTRUCTION) 705, 3204 CORRECTIONAL FACILITIES (see DETENTION FACILITIES)	Below frost line	
	CONVENTIONAL LIGHT-FRAME CONSTRUCTION 2320 CORBELING (see MASONRY, corbels) CORNICES (see also TYPES OF CONSTRUCTION) 705, 3204 CORRECTIONAL FACILITIES (see DETENTION FACILITIES)	Below frost line	
	CONVENTIONAL LIGHT-FRAME CONSTRUCTION 2320 CORBELING (see MASONRY, corbels) CORNICES (see also TYPES OF CONSTRUCTION) 705, 3204 CORRECTIONAL FACILITIES (see DETENTION FACILITIES) CORRECTIONAL TREATMENT CENTERS 424A	Below frost line	
	CONVENTIONAL LIGHT-FRAME CONSTRUCTION 2320 CORBELING (see MASONRY, corbels) CORNICES (see also TYPES OF CONSTRUCTION) 705, 3204 CORRECTIONAL FACILITIES (see DETENTION FACILITIES) CORRECTIONAL TREATMENT CENTERS 424A CORRIDORS As required exits 1004.3.4	Below frost line 1806.1  DESIGN  Aluminum Chapter 20, 2003  Concrete Chapter 19  Footings and foundations Chapter 18  General Chapter 16  Load and resistance factor design (see STEEL, STRUCTURAL)  Masonry Chapter 21	
	CONVENTIONAL LIGHT-FRAME CONSTRUCTION 2320 CORBELING (see MASONRY, corbels) CORNICES (see also TYPES OF CONSTRUCTION) 705, 3204 CORRECTIONAL FACILITIES (see DETENTION FACILITIES) CORRECTIONAL TREATMENT CENTERS 424A CORRIDORS As required exits 1004.3.4 Elevator lobby separation 1004.3.4.5	Below frost line	
	CONVENTIONAL LIGHT-FRAME CONSTRUCTION 2320 CORBELING (see MASONRY, corbels) CORNICES (see also TYPES OF CONSTRUCTION) 705, 3204 CORRECTIONAL FACILITIES (see DETENTION FACILITIES) CORRECTIONAL TREATMENT CENTERS 424A CORRIDORS As required exits 1004.3.4 Elevator lobby separation 1004.3.45 In Group E Occupancies 1007.3	Below frost line	
	CONVENTIONAL LIGHT-FRAME CONSTRUCTION 2320 CORBELING (see MASONRY, corbels) CORNICES (see also TYPES OF CONSTRUCTION) 705, 3204 CORRECTIONAL FACILITIES (see DETENTION FACILITIES) CORRECTIONAL TREATMENT CENTERS 424A CORRIDORS As required exits 1004.3.4 Elevator lobby separation 1004.3.4.5 In Group E Occupancies 1007.3 In Group H Occupancies 307.11.3, 1007.4	Below frost line	
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A C	CONVENTIONAL LIGHT-FRAME CONSTRUCTION 2320 CORBELING (see MASONRY, corbels) CORNICES (see also TYPES OF CONSTRUCTION) 705, 3204 CORRECTIONAL FACILITIES (see DETENTION FACILITIES) CORRECTIONAL TREATMENT CENTERS 424A CORRIDORS As required exits 1004.3.4 Elevator lobby separation 1004.3.4.5 In Group E Occupancies 1007.3 In Group H Occupancies 307.11.3, 1007.4 In Group I Occupancies 1007.5 In Group R Occupancies 420A.5 In stores and offices 601.5.2	Below frost line	
A C	CONVENTIONAL LIGHT-FRAME CONSTRUCTION 2320  CORBELING (see MASONRY, corbels)  CORNICES (see also TYPES OF CONSTRUCTION) 705, 3204  CORRECTIONAL FACILITIES (see DETENTION FACILITIES)  CORRECTIONAL TREATMENT CENTERS 424A  CORRIDORS  As required exits 1004.3.4  Elevator lobby separation 1004.3.45  In Group E Occupancies 1007.3  In Group H Occupancies 307.11.3, 1007.4  In Group I Occupancies 1007.5  In Group R Occupancies 420A.5  In stores and offices 601.5.2  Separation of corridors in	Below frost line	C
A C	CONVENTIONAL LIGHT-FRAME CONSTRUCTION 2320  CORBELING (see MASONRY, corbels)  CORNICES (see also TYPES OF CONSTRUCTION) 705, 3204  CORRECTIONAL FACILITIES (see DETENTION FACILITIES)  CORRECTIONAL TREATMENT CENTERS 424A  CORRIDORS  As required exits 1004.3.4 5 Elevator lobby separation 1004.3.4.5 In Group E Occupancies 1007.3 In Group H Occupancies 307.11.3, 1007.4 In Group I Occupancies 1007.5 In Group R Occupancies 420A.5 In stores and offices 601.5.2  Separation of corridors in Group R, Division 1 Occupancies 310.8	Below frost line         1806.1           DESIGN           Aluminum         Chapter 20, 2003           Concrete         Chapter 19           Footings and foundations         Chapter 18           General         Chapter 16           Load and resistance factor design (see STEEL, STRUCTURAL)         Chapter 21           Masonry         Chapter 21           Must be approved by building official         106.4           Plastic, steel (see STEEL, STRUCTURAL)         Retaining walls         1611.6           Structural steel         Chapter 22           Walls         1605.3, 1611.4, 1611.5           Wood         Chapter 23           DETACHED BEDROOM           Definition         205	CAC
A C	CONVENTIONAL LIGHT-FRAME CONSTRUCTION         2320           CORBELING (see MASONRY, corbels)         CORNICES (see also TYPES OF CONSTRUCTION)         705, 3204           CORRECTIONAL FACILITIES (see DETENTION FACILITIES)         424A           CORRIDORS         424A           As required exits         1004.3.4           Elevator lobby separation         1004.3.45           In Group E Occupancies         1007.3           In Group H Occupancies         307.11.3, 1007.4           In Group I Occupancies         1007.5           In group R Occupancies         420A.5           In stores and offices         601.5.2           Separation of corridors in Group R, Division 1 Occupancies         310.8           CORROSION RESISTANT	Below frost line	C A C A C
A C	CONVENTIONAL LIGHT-FRAME CONSTRUCTION 2320  CORBELING (see MASONRY, corbels)  CORNICES (see also TYPES OF CONSTRUCTION) 705, 3204  CORRECTIONAL FACILITIES (see DETENTION FACILITIES)  CORRECTIONAL TREATMENT CENTERS 424A  CORRIDORS  As required exits 1004.3.4  Elevator lobby separation 1004.3.4.5  In Group E Occupancies 1007.3  In Group H Occupancies 307.11.3, 1007.4  In Group I Occupancies 1007.5  In Group R Occupancies 420A.5  In stores and offices 601.5.2  Separation of corridors in Group R, Division 1 Occupancies 310.8  CORROSION RESISTANT  Definition 1403.3, 1502	Below frost line         1806.1           DESIGN           Aluminum         Chapter 20, 2003           Concrete         Chapter 19           Footings and foundations         Chapter 18           General         Chapter 16           Load and resistance factor design (see STEEL, STRUCTURAL)         Chapter 21           Masonry         Chapter 21           Must be approved by building official         106.4           Plastic, steel (see STEEL, STRUCTURAL)         Retaining walls         1611.6           Structural steel         Chapter 22           Walls         1605.3, 1611.4, 1611.5           Wood         Chapter 23           DETACHED BEDROOM           Definition         205	CACACAC
A C	CONVENTIONAL LIGHT-FRAME CONSTRUCTION         2320           CORBELING (see MASONRY, corbels)         CORNICES (see also TYPES OF CONSTRUCTION)         705, 3204           CORRECTIONAL FACILITIES (see DETENTION FACILITIES)         424A           CORRIDORS         424A           As required exits         1004.3.4           Elevator lobby separation         1004.3.4.5           In Group E Occupancies         1007.3           In Group H Occupancies         307.11.3, 1007.4           In Group I Occupancies         1007.5           In Group R Occupancies         601.5.2           Separation of corridors in Group R, Division 1 Occupancies         310.8           CORROSION RESISTANT         1403.3, 1502           Easteners         Tables 15-A through 15-G	Below frost line	CACACACAC
A C	CONVENTIONAL LIGHT-FRAME CONSTRUCTION         2320           CORBELING (see MASONRY, corbels)         CORNICES (see also TYPES OF CONSTRUCTION)         705, 3204           CORRECTIONAL FACILITIES (see DETENTION FACILITIES)         424A           CORRIDORS         424A           As required exits         1004.3.4           Elevator lobby separation         1004.3.4           In Group E Occupancies         1007.3           In Group H Occupancies         307.11.3, 1007.4           In Group I Occupancies         1007.5           In Group R Occupancies         420A.5           In stores and offices         601.5.2           Separation of corridors in Group R, Division 1 Occupancies         310.8           CORROSION RESISTANT         1403.3, 1502           Fasteners         Tables 15-A through 15-G Roofing/flashing           Tables 15-A through 15-G Roofing/flashing	Below frost line	CA
A C	CONVENTIONAL LIGHT-FRAME CONSTRUCTION         2320           CORBELING (see MASONRY, corbels)         CORNICES (see also TYPES OF CONSTRUCTION)         705, 3204           CORRECTIONAL FACILITIES (see DETENTION FACILITIES)         424A           CORRIDORS         424A           As required exits         1004,3.4           Elevator lobby separation         1004,3.4           In Group E Occupancies         1007,3           In Group H Occupancies         307,11,3, 1007,4           In Group P Occupancies         1007,5           In stores and offices         601,5,2           Separation of corridors in         601,5,2           Separation of corridors in         310.8           CORROSION RESISTANT         1403,3, 1502           Fasteners         Tables 15-A through 15-G           Roofing/flashing         1507,8, 1509           CORROSIVE	Below frost line         1806.1           DESIGN         Aluminum         Chapter 20, 2003           Concrete         Chapter 18         General         Chapter 18           General         Chapter 16         Load and resistance factor design (see STEEL, STRUCTURAL)         Chapter 16           Masonry         Chapter 21         Must be approved by building official         106.4           Plastic, steel (see STEEL, STRUCTURAL)         Retaining walls         1611.6           Structural steel         Chapter 22           Walls         1605.3, 1611.4, 1611.5           Wood         Chapter 23           DETACHED BEDROOM Definition         205           DETACHED SINGLE-FAMILY DWELLING Definition         205           DETECTABLE WARNING Curbs         Chapter 11B           Definition         205	ACACACAC.
A C	CONVENTIONAL LIGHT-FRAME CONSTRUCTION         2320           CORBELING (see MASONRY, corbels)         CORNICES (see also TYPES OF CONSTRUCTION)         705, 3204           CORRECTIONAL FACILITIES (see DETENTION FACILITIES)         424A           CORRIDORS         424A           As required exits         1004.3.4           Elevator lobby separation         1004.3.4.5           In Group E Occupancies         1007.3           In Group H Occupancies         307.11.3, 1007.4           In Group I Occupancies         1007.5           In Group R Occupancies         601.5.2           Separation of corridors in         601.5.2           Separation of corridors in         310.8           CORROSION RESISTANT         1403.3, 1502           Fasteners         Tables 15-A through 15-G           Roofing/flashing         1507.8, 1509           CORROSIVE         Definition         204	Below frost line         1806.1           DESIGN         Aluminum         Chapter 20, 2003           Concrete         Chapter 19           Footings and foundations         Chapter 18           General         Chapter 16           Load and resistance factor design (see STEEL, STRUCTURAL)         STRUCTURAL)           Masonry         Chapter 21           Must be approved by building official         106.4           Plastic, steel (see STEEL, STRUCTURAL)         Retaining walls         1611.6           Structural steel         Chapter 22           Walls         1605.3, 1611.4, 1611.5           Wood         Chapter 23           DETACHED BEDROOM         Chapter 23           DETACHED SINGLE-FAMILY DWELLING         205           DETACHED SINGLE-FAMILY DWELLING         205           Definition         205           DETECTABLE WARNING         Chapter 11B           Curbs         Chapter 11B           Definition         205           Transit boarding platforms         Chapter 11B	ACACACAC.
A C	CONVENTIONAL LIGHT-FRAME CONSTRUCTION         2320           CORBELING (see MASONRY, corbels)         CORNICES (see also TYPES OF CONSTRUCTION)         705, 3204           CORRECTIONAL FACILITIES (see DETENTION FACILITIES)         424A           CORRIDORS         424A           As required exits         1004,3.4           Elevator lobby separation         1004,3.4           In Group E Occupancies         1007,3           In Group H Occupancies         307,11,3, 1007,4           In Group P Occupancies         1007,5           In stores and offices         601,5,2           Separation of corridors in         601,5,2           Separation of corridors in         310.8           CORROSION RESISTANT         1403,3, 1502           Fasteners         Tables 15-A through 15-G           Roofing/flashing         1507,8, 1509           CORROSIVE	Below frost line         1806.1           DESIGN         Aluminum         Chapter 20, 2003           Concrete         Chapter 19           Footings and foundations         Chapter 18           General         Chapter 16           Load and resistance factor design (see STEEL, STRUCTURAL)         STRUCTURAL)           Masonry         Chapter 21           Must be approved by building official         106.4           Plastic, steel (see STEEL, STRUCTURAL)         Retaining walls         1611.6           Structural steel         Chapter 22           Walls         1605.3, 1611.4, 1611.5           Wood         Chapter 23           DETACHED BEDROOM         Chapter 23           DETACHED SINGLE-FAMILY DWELLING         205           DETACHED SINGLE-FAMILY DWELLING         205           Definition         205           DETECTABLE WARNING         Chapter 11B           Definition         205           Transit boarding platforms         Chapter 11B           DETECTORS (see SMOKE DETECTORS)	A C A C A C A C
A C	CONVENTIONAL LIGHT-FRAME CONSTRUCTION         2320           CORBELING (see MASONRY, corbels)         CORNICES (see also TYPES OF CONSTRUCTION)         705, 3204           CORRECTIONAL FACILITIES (see DETENTION FACILITIES)         424A           CORRIDORS         424A           As required exits         1004.3.4           Elevator lobby separation         1004.3.4.5           In Group E Occupancies         1007.3           In Group H Occupancies         307.11.3, 1007.4           In Group I Occupancies         1007.5           In Group R Occupancies         601.5.2           Separation of corridors in Group R, Division 1 Occupancies         310.8           CORROSION RESISTANT         1403.3, 1502           Easteners         Tables 15-A through 15-G Roofing/flashing         1507.8, 1509           CORROSIVE Definition         204           COST (see also VALUATION) Of permits (fees)         107	DESIGN	ACACACAC CACAC
A C	CONVENTIONAL LIGHT-FRAME CONSTRUCTION         2320           CORBELING (see MASONRY, corbels)         CORNICES (see also TYPES OF CONSTRUCTION)         705, 3204           CORRECTIONAL FACILITIES (see DETENTION FACILITIES)         424A           CORRECTIONAL TREATMENT CENTERS         424A           CORRIDORS         1004.3.4           As required exits         1004.3.4           Elevator lobby separation         1007.3           In Group E Occupancies         1007.3           In Group H Occupancies         307.11.3, 1007.4           In Group P Occupancies         1007.5           In Group R Occupancies         601.5.2           Separation of corridors in Group R, Division 1 Occupancies         310.8           CORROSION RESISTANT Definition         1403.3, 1502           Fasteners         Tables 15-A through 15-G           Roofing/flashing         1507.8, 1509           CORROSIVE Definition         204           COST (see also VALUATION)	Below frost line         1806.1           DESIGN         Aluminum         Chapter 20, 2003           Concrete         Chapter 19           Footings and foundations         Chapter 18           General         Chapter 16           Load and resistance factor design (see STEEL, STRUCTURAL)         STRUCTURAL)           Masonry         Chapter 21           Must be approved by building official         106.4           Plastic, steel (see STEEL, STRUCTURAL)         Retaining walls         1611.6           Structural steel         Chapter 22           Walls         1605.3, 1611.4, 1611.5           Wood         Chapter 23           DETACHED BEDROOM         Chapter 23           DETACHED SINGLE-FAMILY DWELLING         205           DETACHED SINGLE-FAMILY DWELLING         205           Definition         205           DETECTABLE WARNING         Chapter 11B           Definition         205           Transit boarding platforms         Chapter 11B           DETECTORS (see SMOKE DETECTORS)	ACACACAC CACAC
A C C A	CONVENTIONAL LIGHT-FRAME CONSTRUCTION         2320           CORBELING (see MASONRY, corbels)         CORNICES (see also TYPES OF CONSTRUCTION)         705, 3204           CORRECTIONAL FACILITIES (see DETENTION FACILITIES)         424A           CORRECTIONAL TREATMENT CENTERS         424A           CORRIDORS         424A           As required exits         1004.3.4           Elevator lobby separation         1004.3.45           In Group E Occupancies         1007.3           In Group B Occupancies         307.11.3, 1007.4           In Group I Occupancies         307.11.3, 1007.4           In Group I Occupancies         420A.5           In stores and offices         601.5.2           Separation of corridors in         Group R, Division 1 Occupancies           Group R, Division 1 Occupancies         310.8           CORROSION RESISTANT         1403.3, 1502           Fasteners         Tables 15-A through 15-G           Roofing/flashing         1507.8, 1509           CORROSIVE         Definition           Definition         204           COURT         Between buildings         503.3, 1203.4.3           Definition         204	Below frost line	ACACACAC CACAC
A C	CONVENTIONAL LIGHT-FRAME CONSTRUCTION         2320           CORBELING (see MASONRY, corbels)         CORNICES (see also TYPES OF CONSTRUCTION)         705, 3204           CORRICTIONAL FACILITIES (see DETENTION FACILITIES)         424A           CORRECTIONAL TREATMENT CENTERS         424A           CORRIDORS         424A           As required exits         1004.3.4           Elevator lobby separation         1004.3.4.5           In Group E Occupancies         1007.3           In Group H Occupancies         307.11.3, 1007.4           In Group I Occupancies         1007.5           In Group R Occupancies         601.5.2           Separation of corridors in         601.5.2           Separation of corridors in         310.8           CORROSION RESISTANT         1403.3, 1502           Fasteners         Tables 15-A through 15-G           Roofing/flashing         1507.8, 1509           CORROSIVE         204           Definition         204           COST (see also VALUATION)         0f permits (fees)         107           COURT         Between buildings         503.3, 1203.4.3           Definition         204           In hospitals         420A.5	Below frost line	ACACACAC CACAC
A C C A	CONVENTIONAL LIGHT-FRAME CONSTRUCTION         2320           CORBELING (see MASONRY, corbels)         CORNICES (see also TYPES OF CONSTRUCTION)         705, 3204           CORRECTIONAL FACILITIES (see DETENTION FACILITIES)         CORRECTIONAL TREATMENT CENTERS         424A           CORRIDORS         424A           As required exits         1004.3.4           Elevator lobby separation         1004.3.4           In Group E Occupancies         1007.3           In Group H Occupancies         307.11.3, 1007.4           In Group H Occupancies         1007.5           In Group R Occupancies         420A.5           In stores and offices         601.5.2           Separation of corridors in         Group R, Division 1 Occupancies           Group R, Division 1 Occupancies         310.8           CORROSION RESISTANT         1403.3, 1502           Fasteners         Tables 15-A through 15-G           Roofing/flashing         1507.8, 1509           CORROSIVE         204           Definition         204           COST (see also VALUATION)         0f permits (fees)         107           COURT         Between buildings         503.3, 1203.4.3           Definition         204           In hospitals         420A.5	DESIGN	ACACACAC CACAC
A C C A	CONVENTIONAL LIGHT-FRAME CONSTRUCTION         2320           CORBELING (see MASONRY, corbels)         CORNICES (see also TYPES OF CONSTRUCTION)         705, 3204           CORRICTIONAL FACILITIES (see DETENTION FACILITIES)         424A           CORRECTIONAL TREATMENT CENTERS         424A           CORRIDORS         424A           As required exits         1004.3.4           Elevator lobby separation         1004.3.4.5           In Group E Occupancies         1007.3           In Group H Occupancies         307.11.3, 1007.4           In Group I Occupancies         1007.5           In Group R Occupancies         601.5.2           Separation of corridors in         601.5.2           Separation of corridors in         310.8           CORROSION RESISTANT         1403.3, 1502           Fasteners         Tables 15-A through 15-G           Roofing/flashing         1507.8, 1509           CORROSIVE         204           Definition         204           COST (see also VALUATION)         0f permits (fees)         107           COURT         Between buildings         503.3, 1203.4.3           Definition         204           In hospitals         420A.5	Below frost line	ACACACAC CACAC
A C C A	CONVENTIONAL LIGHT-FRAME CONSTRUCTION         2320           CORBELING (see MASONRY, corbels)         CORNICES (see also TYPES OF CONSTRUCTION)         705, 3204           CORRECTIONAL FACILITIES (see DETENTION FACILITIES)         424A           CORRECTIONAL TREATMENT CENTERS         424A           CORRIDORS         424A           As required exits         1004.3.4           Elevator lobby separation         1004.3.4           In Group E Occupancies         1007.3           In Group H Occupancies         307.11.3, 1007.4           In Group P Occupancies         1007.5           In Group R Occupancies         420A.5           In stores and offices         601.5.2           Separation of corridors in Group R, Division 1 Occupancies         310.8           CORROSION RESISTANT Definition         1403.3, 1502           Fasteners         Tables 15-A through 15-G           Roofing/flashing         1507.8, 1509           CORROSIVE Definition         204           COST (see also VALUATION) Of permits (fees)         107           COURT         Between buildings         503.3, 1203.4.3           Definition         204           In hospitals         420A.5           Minimum width         1203.4.3           Racquetball and squas	Below frost line	ACACACAC CACAC
C A C A	CONVENTIONAL LIGHT-FRAME CONSTRUCTION         2320           CORBELING (see MASONRY, corbels)         CORNICES (see also TYPES OF CONSTRUCTION)         705, 3204           CORRECTIONAL FACILITIES (see DETENTION FACILITIES)         CORRECTIONAL TREATMENT CENTERS         424A           CORRIDORS         424A         424A           CORRIDORS         1004.3.4         4           As required exits         1004.3.4         5           In Group E Occupancies         1007.3         1           In Group E Occupancies         307.11.3, 1007.4         1           In Group H Occupancies         307.5         11.3, 1007.4         4           In Group P Occupancies         1007.5         1         601.5.2           Separation of corridors in Group R, Division 1 Occupancies         310.8         310.8           CORROSION RESISTANT Definition         1403.3, 1502         1502           Fasteners Fasteners Tables 15-A through 15-G Roofing/flashing         1507.8, 1509           COST (see also VALUATION) Of permits (fees)         107           COURT         Between buildings         503.3, 1203.4.3         204.1           COURT         Between buildings         503.3, 1203.4.3         204.5           Minimum width         1203.4.3         420A.5           Minimum	Below frost line	ACACAC ACAC CAC
A C C A C A C	CONVENTIONAL LIGHT-FRAME CONSTRUCTION         2320           CORBELING (see MASONRY, corbels)         CORNICES (see also TYPES OF CONSTRUCTION)         705, 3204           CORRECTIONAL FACILITIES (see DETENTION FACILITIES)         CORRECTIONAL TREATMENT CENTERS         424A           CORRIDORS         As required exits         1004.3.4         5           In Group E Occupancies         1007.3         1         1007.5         1         1007.5         1         1007.5         1         1007.5         1         1007.5         1         1007.5         1         1         1         1         1         1         1         1         1         2         1         2         1         2         2         4         2         4         2	Below frost line	ACACAC ACAC CAC
C A C A	CONVENTIONAL LIGHT-FRAME CONSTRUCTION         2320           CORBELING (see MASONRY, corbels)         CORNICES (see also TYPES OF CONSTRUCTION)         705, 3204           CORRECTIONAL FACILITIES (see DETENTION FACILITIES)         CORRECTIONAL TREATMENT CENTERS         424A           CORRIDORS         As required exits         1004,3,4         5           In Group E Occupancies         1007,3         1         107,3         1         107,3         1         1007,3         1         1007,3         1         1007,3         1         1007,3         1         1007,3         1         1007,3         1         1007,3         1         1007,3         1         1007,3         1         1007,3         1         1007,3         1         1007,3         1         1007,3         1         1007,5         1         1         1007,5         1         1         1         1007,5         1         2         2         4	Below frost line	ACACACAC CAC
A C C A C A C	CONVENTIONAL LIGHT-FRAME CONSTRUCTION         2320           CORBELING (see MASONRY, corbels)         CORNICES (see also TYPES OF CONSTRUCTION)         705, 3204           CORRECTIONAL FACILITIES (see DETENTION FACILITIES)         CORRECTIONAL TREATMENT CENTERS         424A           CORRIDORS         As required exits         1004.3.4         5           In Group E Occupancies         1007.3         1         1007.5         1         1007.5         1         1007.5         1         1007.5         1         1007.5         1         1007.5         1         1         1         1         1         1         1         1         1         2         1         2         1         2         2         4         2         4         2	Below frost line	ACACACAC CAC

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	<b>E—OCCUPANCIES</b>	Protection of adjoining property 3301.2, Appendix Chapter 33 Protection of pedestrians 3303.7	
	EARTHQUAKE (see also LATERAL-FORCE PROVISIONS)	Water to be removed for concrete placement 1905.7	
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C A

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GARAGE, PRIVATE Accessibility	For grandstands and bleachers
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Accessibility       1103         Carport       312         Classified       312.1         Definition       208	For grandstands and bleachers       1008.5.7         For pedestrian protection       3303.7.2         Glass       2406.6         Required, general       509         GUEST AND GUEST ROOM, definitions       208, 509
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Accessibility         1103           Carport         312           Classified         312.1           Definition         208           Floor surface         312.5           GARAGE, PUBLIC         Classified           Classified         307.1, 311.1           Definition         208           Open parking garage         311, 311.9	For grandstands and bleachers       1008 5.7         For pedestrian protection       3303.7.2         Glass       2406.6         Required, general       509         GUEST AND GUEST ROOM, definitions       208, 509         GUNITE (see SHOTCRETE and PNEUMATICALLY PLACED PLASTER)         GUTTERS         For roof drainage       1506
Accessibility       1103         Carport       312         Classified       312.1         Definition       208         Floor surface       312.5         GARAGE, PUBLIC         Classified       307.1, 311.1         Definition       208         Open parking garage       311, 311.9         Parking garages       311, 311.1	For grandstands and bleachers       1008 5.7         For pedestrian protection       3303.7.2         Glass       2406.6         Required, general       509         GUEST AND GUEST ROOM, definitions       208, 509         GUNITE (see SHOTCRETE and PNEUMATICALLY PLACED PLASTER)         GUTTERS       For roof drainage       1506         Should be kept free of obstructions       3303.3
Accessibility         1103           Carport         312           Classified         312.1           Definition         208           Floor surface         312.5           GARAGE, PUBLIC         Classified           Classified         307.1, 311.1           Definition         208           Open parking garage         311, 311.9	For grandstands and bleachers       1008 5.7         For pedestrian protection       3303.7.2         Glass       2406.6         Required, general       509         GUEST AND GUEST ROOM, definitions       208, 509         GUNITE (see SHOTCRETE and PNEUMATICALLY PLACED PLASTER)         GUTTERS       500         For roof drainage       1506         Should be kept free of obstructions       3303.3         GYMNASIUMS
Accessibility       1103         Carport       312         Classified       312.1         Definition       208         Floor surface       312.5         GARAGE, PUBLIC       307.1, 311.1         Classified       307.1, 311.1         Definition       208         Open parking garage       311, 311.9         Parking garages       311, 311.1         Ramps       307.6         Repair       311, 311.1         Separations required       302	For grandstands and bleachers 1008 5.7 For pedestrian protection 3303.7.2 Glass 2406.6 Required, general 509 GUEST AND GUEST ROOM, definitions 208, 509 GUNITE (see SHOTCRETE and PNEUMATICALLY PLACED PLASTER) GUTTERS For roof drainage 1506 Should be kept free of obstructions 3303.3 GYMNASIUMS General 303.1.303.2.1
Accessibility       1103         Carport       312         Classified       312.1         Definition       208         Floor surface       312.5         GARAGE, PUBLIC       Classified         Classified       307.1, 311.1         Definition       208         Open parking garage       311, 311.9         Parking garages       311, 311.1         Ramps       307.6         Repair       311, 311.1         Separations required       302         Storage       311, 311.1	For grandstands and bleachers 1008 5.7 For pedestrian protection 3303.7.2 Glass 2406.6 Required, general 509  GUEST AND GUEST ROOM, definitions 208, 509  GUNITE (see SHOTCRETE and PNEUMATICALLY PLACED PLASTER)  GUTTERS For roof drainage 1506 Should be kept free of obstructions 3303.3  GYMNASIUMS General 303.1, 303.2.1 Live loads (for general floor design) 1604
Accessibility       1103         Carport       312         Classified       312.1         Definition       208         Floor surface       312.5         GARAGE, PUBLIC         Classified       307.1, 311.1         Definition       208         Open parking garage       311, 311.9         Parking garages       311, 311.1         Ramps       307.6         Repair       311, 311.1         Separations required       302         Storage       311, 311.1         Ventilation required       307.5.2, 311.9.2.2, 1202.2.6, 1202.2.7	For grandstands and bleachers 1008 5.7 For pedestrian protection 3303.7.2 Glass 2406.6 Required, general 509  GUEST AND GUEST ROOM, definitions 208, 509  GUNITE (see SHOTCRETE and PNEUMATICALLY PLACED PLASTER)  GUTTERS For roof drainage 1506 Should be kept free of obstructions 3303.3  GYMNASIUMS General 303.1, 303.2.1 Live loads (for general floor design) 1604 Special construction 708.2.1, Item 6
Accessibility       1103         Carport       312         Classified       312.1         Definition       208         Floor surface       312.5         GARAGE, PUBLIC       Value         Classified       307.1, 311.1         Definition       208         Open parking garage       311, 311.9         Parking garages       311, 311.1         Ramps       307.6         Repair       311, 311.1         Separations required       302         Storage       311, 311.1         Ventilation required       307.5.2, 311.9.2.2, 1202.2.6, 1202.2.7         GARAGE, TYPES OF	For grandstands and bleachers 1008 5.7 For pedestrian protection 3303.7.2 Glass 2406.6 Required, general 509  GUEST AND GUEST ROOM, definitions 208, 509  GUNITE (see SHOTCRETE and PNEUMATICALLY PLACED PLASTER)  GUTTERS For roof drainage 1506 Should be kept free of obstructions 3303.3  GYMNASIUMS General 303.1, 303.2.1 Live loads (for general floor design) 1604
Accessibility       1103         Carport       312         Classified       312.1         Definition       208         Floor surface       312.5         GARAGE, PUBLIC         Classified       307.1, 311.1         Definition       208         Open parking garage       311, 311.9         Parking garages       311, 311.1         Ramps       307.6         Repair       311, 311.1         Separations required       302         Storage       311, 311.1         Ventilation required       307.5.2, 311.9.2.2, 1202.2.6, 1202.2.7         GARAGE, TYPES OF         Group H. Division 4 repair garages	For grandstands and bleachers 1008 5.7 For pedestrian protection 3303.7.2 Glass 2406.6 Required, general 509 GUEST AND GUEST ROOM, definitions 208, 509 GUNITE (see SHOTCRETE and PNEUMATICALLY PLACED PLASTER) GUTTERS For roof drainage 1506 Should be kept free of obstructions 3303.3 GYMNASIUMS General 303.1, 303.2.1 Live loads (for general floor design) 1604 Special construction 708.2.1, Item 6 GYPSUM Concrete 1925 Inspection 2501.2
Accessibility       1103         Carport       312         Classified       312.1         Definition       208         Floor surface       312.5         GARAGE, PUBLIC         Classified       307.1, 311.1         Definition       208         Open parking garage       311, 311.9         Parking garages       311, 311.1         Ramps       307.6         Repair       311, 311.1         Separations required       302         Storage       311, 311.1         Ventilation required       307.5.2, 311.9.2.2, 1202.2.6, 1202.2.7         GARAGE, TYPES OF       Group H, Division 4 repair garages, not classified as Group S, Division 3       307.1         Group H, Division 5 aircraft repair hangars,	For grandstands and bleachers 1008 5.7 For pedestrian protection 3303.7.2 Glass 2406.6 Required, general 509  GUEST AND GUEST ROOM, definitions 208, 509  GUNITE (see SHOTCRETE and PNEUMATICALLY PLACED PLASTER)  GUTTERS For roof drainage 1506 Should be kept free of obstructions 3303.3  GYMNASIUMS General 303.1, 303.2.1 Live loads (for general floor design) 1604 Special construction 708.2.1, Item 6  GYPSUM Concrete 1925 Inspection 2501.2 Plaster for fire-resistive purposes 703.4
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Section 470A.2.3 – In item 7, revise "water closet" to "toilet".

Section 470A.2.6 – In item 4, revise "water closet" to "toilet".

Section 470A.2.7 – In item 4, revise "water closet" to "toilet".

Section 470A.2.8 - In item 3, revise "water closets" to "toilets".

Section 470A.2.9 – In item 1, after the word "inmate" add ";" and delete the words "exclusive of circulation corridors of 3 feet (914 mm) in width in front of cells/rooms;"; and in item 3 revise "water closets" to "toilets".

Section 470A.2.10 – Insert a new paragraph 3 to read "The exercise area must contain or provide free access to a toilet, wash basin, and drinking fountain as provided in Section 470A.3."

Section 470A.2.12 – revise the first sentence to read "There must be a minimum of one suitably equipped medical examination room in every facility which provides on-site health care."; add items "4. Provide lockable storage for medical supplies." and "5. Any room where medical procedures are provided must be equipped with hot and cold running water."

Section 470A.2.15 – Delete heading and the entire section.

Section 470A.2.22 – Delete the last sentence.

Section 470A.2.25 – Revise to read "There must be a minimum of one suitably furnished interview room for confidential interviews in every facility which provides on-site health care. The interview room shall be designed in consultation with responsible custody staff and health care staff. Such an interview room shall:"

Section A3.1 – Revise the title to read "Toilets/urinals."; delete the section language and its exception inserting 6 new items and a Note.

Section 470A.3.2 – Revise the first "Wash Basins." To a bold title; omit the balance of the language and exception; insert 7 new items

Section 470A.3.3 – Revise the first sentence to read "... single-occupancy cell, double occupancy cell, dormitory, temporary holding cell, temporary staging cell, and sobering cell and be accessible to the occupants of dayrooms and exercise areas."; revise item 1 to replace both locations of "water outlet" with "drinking fountain bubbler"; delete item 2; renumber item 3 as item 2.

Section 470A.3.4 – add "NOTE: Shower areas shall provide modesty for inmates with staff being able to visually supervise.".

Section 470A.3.5 – In all locations revise "beds/bunks" to "beds".

Section 470A.3.9 – in the title delete "/shelves/clothes hooks"; and delete all but the first sentence.

Section 470A3.10 – Replace the first sentence with "In temporary holding and temporary staging cells, seating must be securely fixed to the floor and/or wall."

9. January 2, 2003 Supplement approved by the California Building Standards Commission on January 31, 2001, Filed with the Secretary of State on February 2, 2001, published January 1, 2003, and effective 180 days after publication – July 1, 2003:

Section 460A.1.7 – In item 3, revise "... a maximum of 144 ..." to read "... a minimum of 144 ...".

Section 460A.1.8 – In item 3, revise "... a maximum of 144 ..." to read "... a minimum of 144 ...".

Section 460A.1.11 – Replace item 1. language.

Section 460A.1.11 - In item 1.1, revise "... one half ..." to read "... one quarter ...".

Section 460A.1.11 – Revise item 1.2 to read "The required recreation area shall contain no single dimension less than 40 feet."

Section 460A.1.12 – Revise to read "Academic Classrooms. There shall be dedicated academic classroom space for every juvenile in every facility. The primary purpose for the academic classroom shall be for education. Each academic classroom shall contain ..."; and, add the NOTE words as the last sentence of this section

Section 460A.1.14 – delete the "and," for the end of item 4; and, delete the "." and add "; and," to the end of item 5; and, insert a new item "6. Smooth, non porous, washable surfaces."

Section 460A.2.1 – Revise the NOTE of item 3 to read "... provide modesty for ...".

Section 460A.2.3 – insert new items 1. and 2.

Section 460A.2.5 – Delete the last "." And add new language "... measured from any side of the bed. Beds placed ....".

Section 470A.1 – Under **Living Areas**, revise "... as detoxification safety ..." to read "... as sobering safety ...".

Section 470A.2.1 – In item 3., revise "A detoxification cell ..." to read "A sobering cell ..."; and, at the end, add "For those facilities that accept male and female intoxicated inmates, two sobering cells shall be provided."

Section 470A.2.1 – Revise item 4. to read "Access to a shower within the secure portion of the facility."

Section 470A.2.1 – Add a new item "8. Unobstructed access to hot and cold running water for staff use."

Section 470A.2.4 – Revise it to read "**Sobering cell.** A sobering cell shall:"; and, add a new item "8. Have accessible a shower in the secure portion of the facility."

Section 470A.2.5 – In item 1 revise the second line to read "... with no one floor dimension being less than 6 feet ..."; and, add a new item "8. any wall or ceiling mounted devices must be inaccessible to the inmate occupant."

Section 470A.2.8 – In item 1 revise the second line to read "... single-bed unit; a minimum of 70 square ..."; and, revise the third line to read "... double-bed unit; and a minimum of 90 square feet for a triple-bed unit and have a minimum ...".

Section 470A.2.9 – At the end of item 2. delete the "." And add the words "allowed access at a given time;"

Section 470A.2.14 – Add a new second paragraph to read "If negative pressure isolation rooms are being planned, they shall be designed to recognized industry standards."

Section 470A.2.16 – Revise the language in the third to the end of the section to read "... to purchase items. When commissary supplies are kept within the security perimeter for a facility, an area shall be provided for the secure storage of the stock for such inmate canteen items."

Section 470A.2.20 – Revise the second line to read "... janitor's closet, with sufficient area ..."; and, revise the third line to read "... cleaning implements and supplies, must be ..."; and revise the fourth line to read "... of the facility. A mop sink shall also be available within the security area of the facility. In court holding, ..."

Section 470A.3.5 – Revise the first line to read "... must be elevated off the floor, have a solid bottom, and a sleeping surface of at least ..."; and in the second and third lines, end the sentence at "long." delete the words "and be of the pan-bottom type or constructed of concrete."

Section 470A.3.8 – Revise "In detoxification cells ..." to read "In sobering cells ...".

10. (OSHPD EF 01/02) Amend Chapters 4 and 10 of Part 2, Title 24. Approved as emergency by the California Building Stan-

dards Commission on January 15, 2003 and filed with the Secretary of State on January 16, 2003. Effective January 16, 2003.

#### 11. Errata February 1, 2003:

Page 1-30: In Division 6 Occupancies, add reference to Appendix Chapter 3A.

Page 1-116, In Section 1004.3.4.3, insert [For SFM] and revise "... or more in Group E shall..." to "or more; and Group E shall..."

Page 1-134.82: In Figure 11B-18A, revise both parking stall widths to 9'-0'' and the crosshatched divider to 5'-0''.

Page 1-134.83: In both Figures 11B-18B and 11B-18C, revise parking stall width to 9'-0''.

- 12. (SFM 3/02) Swing of Patient Room Doors. Amend Section 1007.511. Approved by the Building Standards Commission on May 14, 2003 and effective 180 days after publication.
- 13. (BOC 01/02) Design Criteria for Furnishings and Equipment. Adopt Section 460A.2.10 Design Criteria for Required Spaces. Amend Sections 460A.1.2; 460A.1.5-460A.1.9; 460A.1.13. Approved by the Building Standards Commission on July 16, 2003 and effective 180 days after publication.
- 14. (SFM EF 06/03) Senate Bill 1896 Bedridden Clients in Residential Care Facilities—Repealed emergency expired January 8, 2004.
- 15. (SFM EF 01/04) Senate Bill 1896 Bedridden Clients in Residential Care Facilities. Amend various sections of the California Building and Fire Codes. Approved on an emergency basis by the California Building Standards Commission on November 18, 2004, effective November 22, 2004.

## 16. Errata April 8, 2005 to November 22, 2004 Emergency Supplement:

Page 1-50.12A: Delete Table 8-B erroneously located in Chapter 4A

Page 1-92: Insert requirements for R2 Occupancies into Table 8-B, renumber Footnote 7 to 8, and insert new Footnote 7.

- 17. (SFM EF 01/04) Senate Bill 1896 Bedridden Clients in Residential Care Facilities. Amend Sections 107.17.14; 203-B; 310.1; add new Section 415A; amend Table 8-A; Sections 904.2.10 and 1003.3.1.8.1. Approved as permanent by the Building Standards Commission on March 16, 2005.
- 18. (CSLCEF 2/05) Amend Title 24, Part 2 with the addition of Chapter 31F. Various sections. Approved by the California Building Standards Commission on January 19, 2005 and filed with the Secretary of State on January 31, 2005. Effective 180 days after publication.
- 19. (HCD EF 01/05) Senate Bill 1025 Disabled Access to Multistory Dwelling Units in Covered Multifamily Dwellings. Amend Sections 1102A.3-C, 1105A and 1107A.5. Approved on an emergency basis by the California Building Standards Commission on May 18, 2005, effective July 1, 2005.
- 20. Editorial change, without regulatory effect, to Sections 1105A.2.1 and 1107A.5: Revise EXCEPTION to delete the period (.) and add the words "and regulated by the Department of Housing and Community Development as referenced in Section 101.17.9.1."
- 21. (SFM EF 01/05) Assembly Bill 1216 Wildland-Urban Interface Fire Protection Areas. Add matrix table for Chapter 7A, amend matrix table for Chapter 15, amend Section 101.17.14, add note to Chapter 7, add new Chapter 7A, and insert Article 1503.4 [for SFM]. Approved on an emergency basis by the California

Building Standards Commission on May 18, 2005, effective December 1, 2005.

22. (BOC 01/04) Part 2, Chapter 4A, Division VIII, Sections 470A.1; 470A.2.8; 470A.2.22. Amend Chapter 4A to add definition modifications to:

"BOARD OF CORRECTIONS" by adding the word "board" between "which" and "acts."

"RATED CAPACITY" change "medical" to "health care."

Section 470A.2.8 remove the phrase "inmate for a" and replace the words "for a" with the word "per."

Section 470A.2.22 remove the words "and" between Type I and Type II and remove the word "facilities" after Type II, also remove the phrase "housing inmate classified higher than mninimum security" and delete the word "must" and replace with new word "shall."

Approved by the Building Standards Commission on July 19, 2005. Filed with the Secretary of State on July 20, 2005. Published on November 23, 2005, effective 180 days after publication.

- 23. (HCD EF 01/05) Senate Bill 1025 Disabled Access to Multistory Dwelling Units in Covered Multifamily Dwellings. Amend Sections 1102A.3-C, 1105A, and 1107A.5. Reapproved on an emergency basis by the California Building Standards Commission on September 21, 2005, effective October 29, 2005.
- 24. Errata December 19, 2005: (BOC 01/04) Correct date sequence of history notes.

#### 25. Errata January 23, 2006:

Page 1-134.1: Section 1102A.3-C, Covered Multifamily Dwellings, DSA/AC Note, revise "Section 1116B.5" to "1111B.5."

Page 1-134.2: Section 1102A.9-I, International Symbol of Accessibility, revise "Chapter 12B" to Chapter 11B."

- 26. (HCD EF 01/05) Senate Bill 1025 Disabled Access to Multistory Dwelling Units in Covered Multifamily Dwellings. Amend Sections 1102A.3-C, 1105A and 1107A.5. Approved as permanent by the Building Standards Commission on January 25, 2006.
- 27. (SFM EF 01/05) Assembly Bill 1216 Wildland-Urban Interface Fire Protection Areas. Add matrix table for Chapter 7A, amend matrix table for Chapter 15, amend Section 101.17.14, add note to Chapter 7, add new Chapter 7A, and insert Article 1503.4 [for SFM]. Re-adopted/approved on an emergency basis by the California Building Standards Commission on March 22, 2006, effective March 30, 2006.
- 28. (SFM EF 02/05) Assemby Bill 1216 Wildland-Urban Interface Fire Protection Areas. Amend Chapter 7A—References, Definitions and Standards of Quality. Adopted on an emergency basis by the California Building Standards Commission on September 21, 2005 with an effective date of January 1, 2008.
- 29. (HCD 03/04) Amend Title 24, Part 2, Vol. 1, Chapters 1, 2, 11A with editorial corrections, updated accessibility provisions for residential applications. Approved by the California Building Standards Commission on May 17, 2006. Filed with Secretary of State on May 23, 2006 with an effective date 180 days after publication.
- 30. (DSA/AC 02/04) Amend Title 24, Part 2, Vol. 1, Chapters 1, 2, 10, 11A, 11B, 11C and 30 with editorial corrections, updated accessibility provisions for public buildings. Approved by the California Building Standards Commission on May 17, 2006. Filed with Secretary of State on May 23, 2006 with an effective date 180 days after publication.

- 31. (OSHPD 02/04) Amend Title 24, Part 2, Vol. 1, Chapters 1 and 4A with editorial corrections, updated provisions for medical facilities. Approved by the California Building Standards Commission on May 17, 2006. Filed with Secretary of State on May 23, 2006 with an effective date 180 days after publication.
- 32. (SFM 05/04) Amend Title 24, Part 2, Vol. 1, Chapters 1, 2, 3, 9, 10 and 35 with editorial corrections, updated provisions for fire and panic safety applications. Approved by the California Building Standards Commission on May 17, 2006. Filed with Secretary of State on May 23, 2006 with an effective date 180 days after publication.
- 33. (AGR 01/04) Amend Title 24, Part 2, Vol. 1, Chapter 4A with editorial corrections, updated provisions for meat and poultry processing plants, collection centers and facilities, renders and horsemeat and pet food establishments. Approved by the California Building Standards Commission on May 17, 2006. Filed with Secretary of State on May 23, 2006 with an effective date 180 days after publication.
- 34. Editorial Corrections. Editorial corrections. Approved by the California Building Standards Commission on May 17, 2006. Filed with Secretary of State on May 23, 2006 with an effective date 180 days after publication.

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